Antecedents and consequences of perceived risk in Internet shopping in China and France : a cross-cultural approach

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ANTECEDENTS AND CONSEQUENCES OF PERCEIVED RISK IN INTERNET SHOPPING IN CHINA AND FRANCE: A CROSS-CULTURAL APPROACH

A thesis submitted for the degree of Doctor of Business Administration

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This thesis is dedicated to my parents and my little brother

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3 China Scholarship Council www.csc.edu.cn

ANTECEDENTS AND CONSEQUENCES OF PERCEIVED RISK IN INTERNET SHOPPING IN CHINA AND FRANCE: A CROSS-CULTURAL APPROACH

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ABSTRACT

Despite the benefits of online commerce over traditional commerce, negative aspects associated with this shopping method are also becoming critical. The perceived risks associated with online shopping have a critical effect on consumer decision making. In addition, cultural values provide a good theoretical basis for understanding perceived risk. Given the rapid globalization of online shopping, an understanding of the reasons why perceived risk vary in different cultures regarding online shopping should be crucial.

China is one of the countries that have shown the fastest information technology adoption trends. On the other hand, e-commerce also continues its upward trend in France. With such a large Internet shopper population and increasing online consumer spending, better understanding of online shopping risk as perceived by Chinese and French e-shoppers becomes particularly relevant.

The research question furnishing the main impetus for this study is: What are the significant

differences in the effect of several determinants of perceived risk of online clothing shopping depending on cultural differences between China and France?

A total of 195 and 221 questionnaires respectively from Chinese and French respondents were used for the analysis. Structural equation models with the maximum likelihood estimation method are employed to test all the hypothesized relationships.

The research puts forth some findings. First, it is interesting to note that both the Chinese and French respondents perceive low levels of non-personal and personal risk regarding their online clothing purchases, but the Chinese respondents perceive higher non-personal risk than the French respondents and higher personal risk than the French respondents. For the different scores of perceived risk between the two samples, we find that Chinese online shopping consumers perceive both higher non-personal risk and personal risk than French consumers. This difference may be explained by the cultural differences between China and France. Uncertainty avoidance is considered the most important cross-cultural perspective of perceived risk because this dimension mirrors a culture's tolerance or intolerance of uncertainty. According to Hofstede (2001), low-uncertainty avoidance cultures are characterized by "more risk taking" (p. 132) and "preference for tasks with uncertain outcomes and calculated risks" (p. 169). Hofstede's (1984) study demonstrated that China was a low uncertainty avoidance culture; whereas France was a high uncertainty avoidance culture. However, we noted in our previous study that both China and France have high scores of Uncertainty Avoidance. China has even higher scores than France in fact. This cultural change can be explained by dramatic societal and economical changes in the past two decades in China.

The second key finding is that privacy concerns, security protection, and reputation have different effects on both consumer perception of non-personal risk and personal risk depending on cultural differences. Reputation is more valued in collectivist cultures (China), while privacy concerns and security protection are more valued in individualist cultures (France).Finally, for both the Chinese and the French sample, non-personal perceived risk has a significant effect on intention to repurchase. On the other hand, for the effect of personal

perceived risk on intention to repurchase, we just found personal perceived risk has a significant effect on Chinese consumers' intention to repurchase.

Finally, for both the Chinese and the French sample, non-personal perceived risk has a significant effect on intention to repurchase. The less non-personal risk is perceived by both Chinese and French online consumers, the greater their intention to repurchase on that site. On the other hand, for the effect of personal perceived risk on intention to repurchase, we just found personal perceived risk has a significant effect on Chinese consumer intention to repurchase.

From a theoretical standpoint, our study provide a multi-group model explaining key psychological processes of the influence of privacy concerns, security protection, and reputation on intention to repurchase online via perceived risk. In addition, repetition of purchase is critical for e-commerce and the risk remains after the initial purchase, thus, from a theoretical perspective, it is useful to better understand post-purchase risk.

With increasing globalization of firms, the need for a clearer comprehension of cultural influences on personal and non-personal risks cannot be overemphasized. We combined the national culture dimensions from Hofstede's studies in our models. This study identifies two national cultural types: individualistic and collectivist. The study also empirically tests the model using cross-cultural data collected from two countries typically representing individualistic and collectivistic cultures. The results of the study not only show that privacy concerns, security protection, and reputation plays an important role in business-to-consumer e-commerce transactions via perceived risk across cultures but also clearly support the theoretical argument that culture affects the influence of privacy concerns, security protection, and reputation on perceived risk.

Furthermore, in terms of the measurement equivalence and the data analysis methodology, this study employed a multi-group SEM analysis using AMOS in the IS research area. This is a road less traveled. In cross-group research, measurement equivalence issues (i.e., whether measurement accuracy, reliability and validity are achieved across samples) are critical (Byrne, 2004). Thus, multiple group SEM analysis has been suggested as a reliable method

for determining measurement equivalence if a grouping variable (i.e., culture in this study) affects a structural equation model across groups (Steenkamp and Baumgartner, 1998; Kim, 2008). However, the use of this analysis is limited in the IS area. To our knowledge, there are very few papers published using multi-group SEM analysis in IS journals.

In addition to theoretical and methodological implications, our study contributes to managerial developments by providing important insights for multinational online business managers. First, our research, conducted in China and France, demonstrates the influence of privacy concerns, security protection, and reputation on the Internet, taking into consideration perceived risk. In light of our findings, e-marketers and e-retailers should be encouraged to address privacy concerns, security protection, and reputation issues and minimize risks.

Second, the growth of information technology, rapid globalization, and the liberalization of e-commerce have intensified competition among e-retailers. Increasingly, firms are expanding their business operations beyond their domestic markets. Therefore, it is imperative that firms understand and cope with cultural differences (Keh and Sun, 2008). Our research suggest that the multinational Internet business managers should put special emphasis on privacy concerns, security protection, and reputation as viewed from the perspective of the cultural background of their target consumers.

LES ANTÉCÉDENTS ET LES CONSÉQUENCES DES RISQUES PERÇUS DANS LES ACHATS SUR INTERNET EN CHINE ET EN FRANCE : UNE APPROCHE INTERCULTURELLE

RÉSUMÉ

Malgré des avantages du commerce électronique sur le commerce traditionnel, des aspects négatifs associés à ce mode d'achat sont également critiques. Les risques perçus associés aux achats en ligne ont un effet critique sur la prise de décision du consommateur. En outre, étant donnée la mondialisation rapide des achats en ligne, une compréhension des raisons pour lesquelles les risques perçus varient en fonction de différentes cultures dans les achats en ligne est pertinente.

La question de recherche qui motive cette étude est la suivante: « *Quelles sont les différences significatives dans les effets de plusieurs déterminants des risques perçus dans les achats de vêtements en ligne en fonction des différences culturelles entre la Chine et la France ?* »

Un modèle d'équations structurelles est développé sur les relations hypothétiques entre les construits de l'étude. Une recherche empirique pour tester notre modèle conceptuel est menée à partir des données de 407consommateurs, en France (212) et en Chine(195).

La recherche a apporté quelques résultats. Tout d'abord, nous avons constaté que les répondants chinois et français perçoivent de faibles niveaux de risques non-personnels et personnels dans leurs achats de vêtements sur Internet, mais les répondants chinois perçoivent un niveau plus élevé de risques non-personnels et personnels que les français.

Pour les différents scores de risques perçus entre les deux échantillons, nous avons trouvé que les consommateurs chinois perçoivent à la fois un niveau plus élevé de risques non-personnels et de risques personnels que les consommateurs français.

Le deuxième résultat principal est que le rôle des déterminants des risques perçus (la préoccupation des informations personnelles, la protection de la sécurité et la réputation des vendeurs en ligne) sur les risques perçus dans les achats en ligne varient selon les cultures. La réputation du site Web est plus valorisée dans les cultures collectivistes (Chine), tandis que la préoccupation des informations personnelles et la protection de la sécurité sont plus valorisées dans les cultures individualistes (France).

Enfin, à la fois pour l'échantillon chinois et français, les risques perçus non-personnels ont un effet significatif sur l'intention à racheter. D'autre part, en ce qui concerne l'effet des risques perçus personnels, nous avons constaté qu'il y avait un effet négatif des risques perçus personnels sur les consommateurs chinois.

Du point de vue théorique, notre étude fournit un modèle de groupe multiple qui explique les principaux processus psychologiques de l'influence de la préoccupation des informations personnelles, la protection de la sécurité, et la réputation des vendeurs en ligne sur l'intention de rachats via les risques perçus. En outre, l'étude a également testé empiriquement le modèle en utilisant les données interculturelles recueillies à partir de deux pays qui représentent respectivement les cultures individualistes et collectivistes.

Du point de vue méthodologique, cette étude a employé une analyse de SEM de multi-groupes pour tester l'équivalence de mesures et analyser des données utilisant AMOS. À notre connaissance, il y a très peu d'articles publiés en utilisant l'analyse de SEM de multi-groupes dans les revues des Systèmes d'Information.

En plus des implications théoriques et méthodologiques, notre étude contribue à l'évolution managériale en fournissant les managers des entreprises multinationales en ligne les informations importantes. À la lumière de nos résultats, les vendeurs en ligne devraient être encouragés à répondre à la préoccupation des informations personnelles des consommateurs,

à la protection de la sécurité et à leur réputation afin de minimiser les risques perçus par les consommateurs. De plus, notre recherche suggère que les dirigeants d'entreprises multinationales devraient mettre un accent particulier sur la préoccupation des informations personnelles, la protection de la sécurité et la réputation, vu de la perspective de l'arrière-plan culturel de leurs consommateurs cibles.

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CHAPTER 1: INTRODUCTION

1.1 Research Background and Problematic

Development of the Internet has strongly impacted the worldwide marketing environment and has provided companies with the ability to expand their business reach through e-commerce (Kailani and Kumar, 2011). Despite the benefits of online commerce over traditional commerce and optimistic predictions for future growth of online shopping, negative aspects associated with this shopping method are also becoming critical (Ko et al., 2004). Exposure to new method of e-commerce transactions and information overload bring increased uncertainty for both new and experienced internet users (Angriawan and Thakur, 2008; Kailani and Kumar, 2011).

Consumers perceive a higher level of risk when purchasing on the Internet as compared with traditional forms of shopping. These perceived risks associated with online shopping in turn have a critical effect on consumer decision making. It is suggested that perceived risk is a powerful index for explaining consumer behavior since consumers are more often motivated to minimize potential failure than to pursue purchasing success (Mitchell, 1999). From a managerial standpoint, understanding consumer perceived risk and how consumers attempt to reduce these risks is of great concern. Perceived risk, therefore, has become a hot topic of study for many researchers (Kalakota and Whinston, 1996). However, to date, little empirical research has explored perceived risk and its antecedents. Investigating determinants of perceived risk therefore is one of our concerns in this research.

Considering that online shopping has an international reach and depends on global markets for its expansion and growth, it is therefore critical to understand the impact of cross-culture on perceived risk in internet shopping (Kailani and Kumar, 2011). Social sciences have long acknowledged cultural influences on human behavior (Soares, 2004). The concept of culture, long recognized in Anthropology, Sociology and Psychology, has been playing an important

role in Marketing (Ogden et al., 2004, in Soares, 2004). According to Soares (2004), rich stream of cross-cultural empirical studies has been generated in 1990s that witnessed the emergence of theoretical contributions on the application of culture to Marketing (Douglas and Craig, 1997). In the last two decades, cross-cultural issues and perceived risk have respectively gained higher profiles in both information systems and marketing (Poumadere, 1995; Brenot et al., 1998; Weber and Hsee, 1998; Park and Jun, 2003; Viklund, 2003; Erdem et al., 2004; Ueltschy et al., 2004; Keh and Sun, 2008; Comegys et al., 2009; Ko et al., 2010; Kailani and Kumar, 2011). However, to our best knowledge, little research has examined the impact of cultural influences on perceived risk determinants. Thus the research on examining the impact of culture on perceived risk determinants in online shopping settings is needed.

Moreover, prior research on perceived risk has generally adopted a cross-national perspective, in which countries have been used as proxies for national cultures (Hoover et al., 1978; Poumadere, 1995; Park and Jun, 2003; Viklund, 2003; Comegys et al., 2009). Most of previous cross-cultural studies are based on Hofstede's national cultural dimensions (Weber and Hsee, 1998; Jones and Alony, 2007; Ladbury and Hinsz, 2009; Ko et al., 2010; Moosmayer and Koehn, 2011; Zheng et al., 2012). The researchers agree that national cultures endure over time and they are still valid as collective identities (Hofstede, 1991) and ignore the culture change. Given the rapid pace of globalization, turbulent economic and political changes, and the dominance of multinational corporations (Agarwal et al., 2010), although national cultures endure over time and are still valid as collective identities (Hofstede 1991), there should be heterogeneity in cultural attitudes and consumer behavior within counties and homogeneity across countries (Agarwal et al., 2010). We therefore doubt cultural values can retain over time. There is therefore a need to identify if cultural values change over time before we use Hofstede’s culture model in our research.

China is one of the countries that have shown the fastest information technology adoption trends. According to CNNIC[4] (2010), online shopping is becoming an important shopping mode in China. In 2008, online shopping market transactions accounted for 1.1% of total retail sales. The proportion rose to 2% in 2009, and increased to 3.3% in 2010. In 2010,

[4] China Internet Network Information Center

annual online shopping transactions amounted to 523.1 billion yuan[5], increasing by 109.2% compared to 2009. Meanwhile, the number of Chinese e-shoppers continues to grow; the rate of online shopping penetration continued to increase in 2010. As of December 2010, the online shopping penetration rate had reached 35.1% (CNNIC 2010). There are 161 million online in china.

E-commerce also continues its upward trend in Europe. The latest "B2C E-Commerce Report 2011" presented by market research firm yStats.com provides a detailed overview of B2C E-Commerce in Europe. According to this report, the number of Internet shoppers in Europe rises to 200 million by 2015. The "France B2C E-Commerce Report 2011" shows that in France 56% of the population purchased on the Internet in 2010. B2C E-Commerce transactions in France rose by more than 20% in 2010 when compared with 2009. In addition, almost half of the French population aged 25-34 ordered "Clothes, Sports Goods" online in 2010.

With such a large Internet shopper population and increasing online consumer spending, better understanding of online shopping risk as perceived by Chinese and French e-shoppers becomes particularly relevant. However, our review of the literature indicates that most previous cross-cultural research on perceived risk was conducted in the context of countries other than China and France, for example, China, Germany, Poland and U.S. (Weber and Hsee, 1998); China and Singapore (Keh and Sun, 2008); U.S. and Canada (Keh and Sun, 2008); U.S. and Finland (Comegys et al., 2009); U.S. and Korea (Park and Jun 2003; Ko et al., 2010); U.K. and Hong Kong (Lim et al., 2004); U.S. and U.K. (Erdem et al., 2004). Research in the Chinese and French context is limited. Given the respective economic importance of China and France and the significance of cultural differences between these two countries, it seems interesting and meaningful to explore PR between the two countries.

[5] Chinese currency is called Renminbi. The unit for Renminbi is *Yuan*, and also *Jiao* and *Fen*. The abbreviated symbol of Renminbi Yuan is RMB.
See http://en.cnta.gov.cn/travelinchina/forms/travelinchina/Currency.shtml

1.2 Research Aims and Research Questions

1.2.1 Research Aims

Given that risk related issues are a culturally sensitive consumer behavior dimension (Hofstede, 1984), and risk taking behavior constitutes an important dimension of consumer behavior across a broad range of products and situations (Soares, 2004), this research intends to enrich perceived risk theory and highlight cross-national research as an important paradigm in international cultural research. It will do so by providing a multi-group model explaining the impact on intention to repurchase of key psychological processes related to perceived risk stemming from privacy concerns, security protection, and website reputation.

It also aims to provide e-marketers and e-retailers with important insights for multinational online business. First, it is important for international managers and marketers to be aware that privacy concerns, security protection, and reputation are critical factors influencing consumer online repurchase intention via perceived risk. Second, the growth of information technology, rapid globalization, and the liberalization of e-commerce have intensified competition among e-retailers. Therefore, it is imperative that international firms understand that the level of perceived risk and the strength of the influence of determinants on perceived risk may vary across cultures. This knowledge will then help managers cope with and address cultural differences in their marketing and sales efforts (Keh and Sun, 2008).

This research project was designed as an exploratory study to examine a theoretical model of perceived risk determinants in the context of online clothing shopping, taking into consideration cultural differences. According to the results from Hofstede (1980; 2001), Schwatz (1992; 1999), Trompenaars (1993), and Hall (1973), there are cultural differences between China and France. This research was conducted using cross-cultural data from these two countries.

More precisely, the aims of this research are presented as follows:

1) Proposing a theoretical model of online consumer perceived risk antecedents in an e-commerce context

A handful of researchers tried to categorize the antecedents of perceived risk in commerce (e.g., Celsi and Olson, 1988; Jain and Srinivasan, 1990; Dowling and Staelin, 1994; Volle, 1995; Tse, 1996; Weber and Hsee, 1998; Dholakia, 2001; Conchar et al., 2004; Ding, 2007; Keh and Sun, 2008; Kailani and Kumar, 2011). Based on the review of previous studies, we found that the determinants of perceived risk is a promising avenue for future research and deserves more research attention, since these studies are lacking empirical support and overall review.

2) Testing the proposed model empirically using cross-cultural data

Culture has been identified as an underlying determinant of consumer behavior, and this extends to e-commerce (Kailani and Kumar, 2011). As internet shopping becomes progressively more global and as Internet use is increasing at an exponential rate in terms of the number of cross-cultural interactions between e-vendors and consumers, it is becoming increasingly important to understand the existence and nature of cultural differences on perceived risk in e-commerce.

McAllister (1995) proposed two different categories of determinants in the term of trust – affect-based determinants and cognition-based determinants. According to the author, affect orientation (such as, citizenship behavior and interaction frequency) is built on the emotional bonds between partners, whereas cognition-based orientation is built on the knowledge of role performance (such as, peer reliable role performance, cultural-ethnic similarity, and professional credentials). Based on the contrasting role of affect-based versus cognition-based in the two different cultures, Chen et al. (1998) propose that affect orientation is more positively related to cooperation in a collectivist culture. Later Kim (2008) adopted these two categories to his trust determinant model in the two different cultures. The author developed two-group determinants of trust - transference-based (e.g., reputation) and self-perception-based (e.g., security protection, privacy concern).

From this perspective, it is crucial for researchers and international companies to effectively identify consumers' differences in cross-national context. In this research, we explore the influence of culture on perceived risk in cross-national research paradigm. More precisely, we are going to test the influence of these two-group dimensions of the model in the specific cultural settings.

3) Pretesting Hofstede's Cultural Dimensions

As one way to study culture is through the identification and measurement of cultural dimensions (Dickson et al., 2003) and the most widely quoted (as well as strongly criticized) cultural dimensions are undoubtedly those proposed by Hofstede (1980; 2001). He originally classified four culture dimensions: individualism-collectivism; masculinity–femininity; uncertainty avoidance; and power distance) and in a later work (2001), a fifth dimension (future orientation) was added. Each country in this model is characterized by a score on each of the dimensions. Thus, Hofstede's (1980; 1991; 1996; 2001) framework were adapted to operationalize the concept of culture.

Although his culture model (1984; 1991; 2001) is mostly widely used in cross-cultural research, Hofstede's work has been criticized outdated since empirical work that uncovered the initial four dimensions took place in 1967-73, particularly with today's rapidly changing global environments. Given this reality, the purpose of this study is to re-evaluate Hofstede's cultural values and to investigate whether cultural values changes over time.

4) Providing some insight to multinational Internet business managers from a cross-cultural perspective

Considering theoretical implications, this study intends to enrich perceived risk theory and extend the concept of perceived risk to the e-commerce context. We investigate the differences in the levels of perceived risk in the Internet shopping context in different cultures. We go further by identifying the factors that influence perceived risk with an empirical support: transference-based (reputation) and self-perception-based (security protection, privacy concern).

Given that e-commerce has no national boundaries and has an international reach, online shopping retailers need strategies for different market segments. This research highlights cross-cultural research as an important paradigm in international cultural research by exploring how perceived risk differs in different cultural background. This research provides online marketers and retailers an identification of national-level models of perceived risk. Managers can use this model as a market segmentation tool for international strategies.

1.2.2 Research Questions

The research question of this project is therefore as follows:

What are the significant differences in the effect of several determinants of perceived risk of online clothing shopping depending on cultural differences between China and France?

More specifically, this research intends to answer the following four research sub-questions:

Do Chinese consumers perceive lower level of risk regarding online shopping than French consumers?

Does website retailer reputation have a negative effect on consumer perceived risk in online shopping?

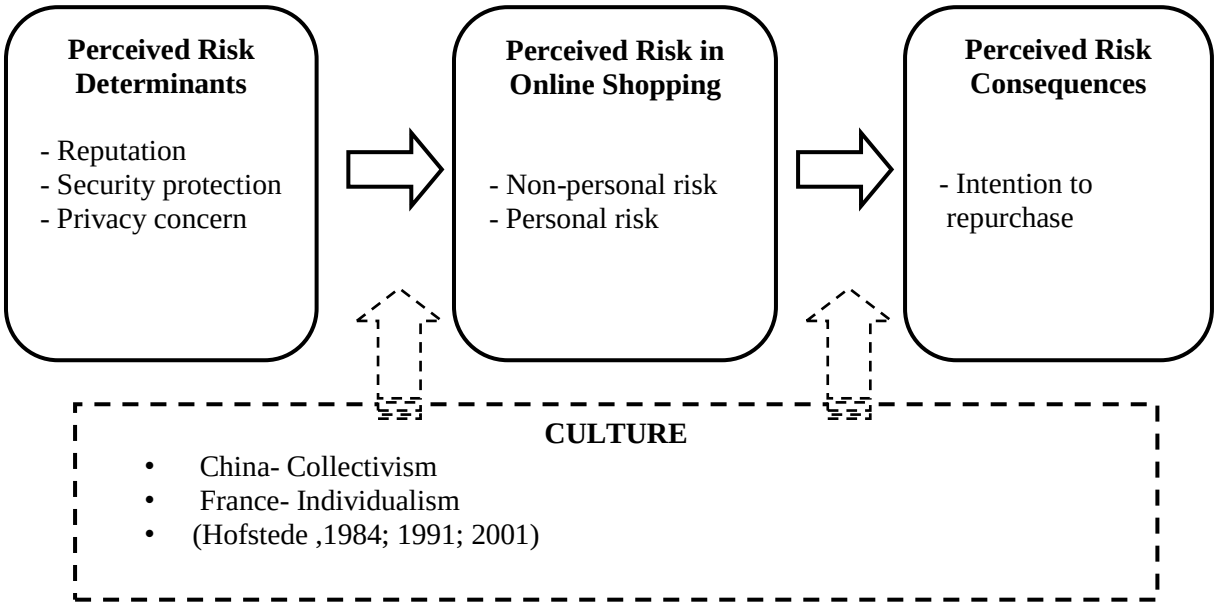
Does website security protection have a positive effect on consumer perceived risk in online shopping?

Does consumer privacy concern have a negative effect on perceived risk? Does perceived risk negatively affect intention to repurchase?

Would the inclusion of culture as an explanatory variable enrich an understanding of consumer perceived risk in international settings?

The main research areas involved in this research and their causal relations are presented in figure 1.1. As figure 1.1 illustrates, the core of the research is centered on the effects of determinants on perceived risk in the context of China and France.

Figure 1.1. Research areas and causal relations



1.3 Research Scope

1.3.1 A Cross-cultural Research between China and France

The study of the perceived risk differences between China and France from a cross-national perspective is interesting for several reasons.

Firstly, the majority of recent cross-cultural studies on perceived risk is carried out on the two major players in the present world economy, China and United States (e.g., Hsee and Weber, 1997; 1999; Yates et al., 1996; Yates et al., 1997; Weber and Hsee, 1998; Weber et al., 1998; Yates et al., 1998). European Union as another major player in the world should be paid equal attention. However, little empirical research has been conducted by focusing on European Union.

Second, the two countries are selected because previous cross-cultural research reported that the two nations represent opposite values on various cultural dimensions (Hall, 1976; Hofstede, 2001). More specifically, one sub-dimension scale (i.e., individualism/collectivism) of Hofstede's cultural dimensions clearly shows big differences between the two countries. Also, China has been considered as one of the countries which have shown the fastest information technology adoption trends whereas the France represents the large domestic online retail market. The researchers of this study expect to find some cross-national differences in the antecedents and consequences of perceived risk in online shopping. Thus, it is interesting to raise the question of whether cross-cultural differences in risk perception exist between China and France. The results of this comparative study between China and France may give evidence or reveal new point of view to the results of the previous studies on cultural factors. We consider such a replication to be valuable to understand whether findings can be generalized to different populations, and to establish support beyond one-shot studies, particularly given the narrow focus of prior research on only few countries.

Furthermore, Sullivan and Cottone (2010) suggested that the mixed-culture research teams and the active participation of cultural informants in cross-cultural studies are recognized as a

strength and significant benefit. “Teams of researchers and cultural informants made up of individuals from different cultures bring with them different perspectives to the research process and resulting conclusions” (Sullivan and Cottone, 2010, p. 359). As cited by Sullivan and Cottone (2010), Park and Lahman (2003) found having a mixed- culture research team to be a distinct advantage that provided them with different perspectives on the data. Not only did this benefit the study, but it also affected the authors personally and gave them an opportunity to learn about another culture as well as to view from a different point of view. In addition, according to Sullivan and Cottone (2010), Einarsdóttir (2006) questioned the ethics of making comparisons between vastly different cultures and how the researcher's cultural identity and perspective affects the research process and conclusions. Acknowledging researcher cultural identity is valuable because it provides a cultural lens through which another culture is investigated. From this point, the results of this research will be more reliable, since the researcher is of Chinese origin and living recently in France, having the knowledge of Chinese culture and French culture origin.

Last but not least, the comparison between China and France deserve special attention from the managerial perspectives, since the raising commercial cooperation between China and France and the potential market. Thus far no research comparing French consumers’ risk perception with other important markets has been found in the scientific literature. Given and massive size of China’s e-commerce, the results of the present study intends to help those companies, especially French companies, to understand better the perceived risk of Chinese online consumers based on cultural perspectives, and to increase marketing efficiency to reduce the perceived risk and retain consumer’s loyalty to repurchase. Our findings have important implications for marketing practitioners in China, especially for multinational corporations that enter China and that are not familiar yet with the Chinese environment.

1.3.2 B to C: Business to consumer

Online marketplaces can be separated into two categories: business-to-business marketplaces that facilitate exchange relationships among organizations and business-to-consumer or consumer-to-consumer marketplaces that facilitate transactions involving consumers (Pavlou and Gefen, 2004). The recent study exclusively focuses on the latter category, that is, business-to-consumer, aiming to understand purchasing risk perceived by consumers when they purchase the cloth from the online shopping retailing mall. The companies that have their own online selling canals are excluded.

The consumers are asked to respond in the questionnaire based on their recent online shopping experience with the Internet retailers, such as, 淘宝商城/天猫 (Taobaoshangcheng/Tianmao), 麦考林 (maikaolin), 凡客 (VANCL), 卓越亚马逊 (Amazon), 京东商城(Jingdong), 日日来商城(ririlai), 华强商城(Huaqiang), 卓购商城 (Zhuoyue) in China, and Amazon, ebay, PriceMinister, Zalando, 3 Suisse in France. These online shopping sites in China and in France share one common characteristic, that is, they are the most popular and largest online retailers in the two countries.

1.3.3 Clothing purchase on the Internet

1.3.3.1 Textile and Apparel E-retailers

Different types of products seem to evoke different level of perceived risk and different reduction strategies for reducing risk (Nelson, 1970; Mangold et al., 1987; Soopramanien et al., 2007; Samadi and Yaghoob-Najadi, 2009; Kim, 2010). According to Kim (2010), previous research (Mangold et al., 1987) indicates that consumers are more likely to rely on

personal or non-personal risk-reduction strategies depending on product type. Personal products refer to products that have more personal attributes such as clothes, accessories, and furniture, while non-personal products include CDs, and books. Personal strategies refer to risk reduction strategies that use personal information sources such as family and friends, while non-personal strategies include media sources, such as, TV and newspapers (Mangold et al., 1987). In addition (as noted by Soopramanien et al., 2007), Nelson (1970) classifies products into two categories, either search (e.g. CD or a book) or experience products (e.g. clothes). Product and price information may be enough to reduce the risks associated with purchasing "search products". In the case of experience products, consumers may also need to have some 'experience' with the product more than just need information. Therefore, it is necessary to focus analysis of perceived risk on one product or one product category.

According to CNNIC, the online clothing shopper group continues to expand in China. In 2010, clothing e-shoppers made up the largest online shopper group, accounting for 70.1% of total online shoppers, followed by the electronic products consumer group representing 31.6%. The third largest group purchased books, and video products and represents 31.4% of total online shoppers.

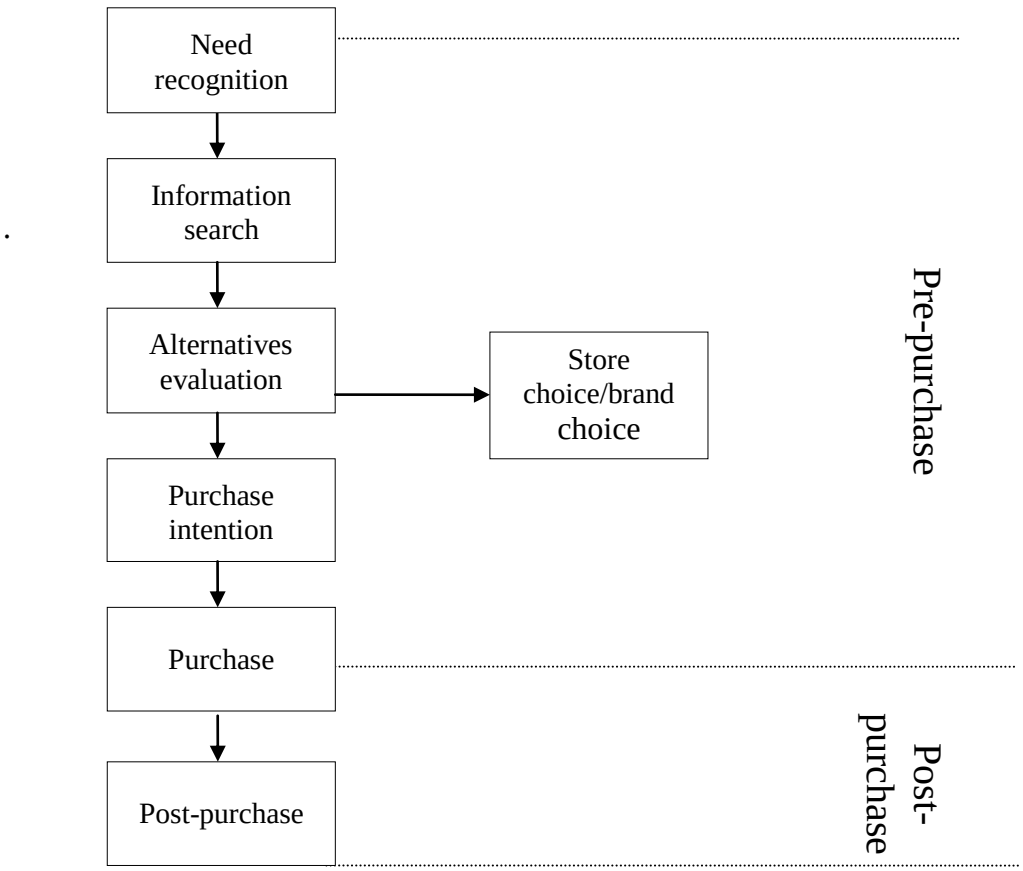
This perspective is supported by the study on French online shopping consumers conducted by Cases (2001) wherein she indicates that "the clothing industry, which occupies an important place in home shopping…is very often used in studies on risk perception (Derbaix, 1983; Hawes and Lumpkin, 1986) in addition to being characterized by familiarity and frequency of purchase" (p391). By taking into account one of the largest online shopper groups, i.e. clothing shoppers; we hope that this research results in a better understanding of Chinese and French online shoppers.

1.3.3.2 Perceived Risk Regarding to Post-purchase Stage

Complex decision making involves consumer information processing, the evaluation of alternative brands, and consumer's evaluation of the brand after purchasing it, consumer

satisfaction and post-purchase evaluation (Assael, 2004). Cunningham et al. (2004) indicated that two major factors impact perceived risk: shopping method (i.e., traditional versus Internet) and consumer purchasing stage. The different types of perceived risks affect on some level the entire buying process, thus the concept of perceived risk must be studied as part of purchasing process (Cunningham et al., 2004). The consumer buying process is often described as a five-stage linear process (Blackwell et al., 2003; Hawkins et al., 2003) as illustrated in the figure 1.2:

Figure 1.2. Five-stage Linear Purchase Process



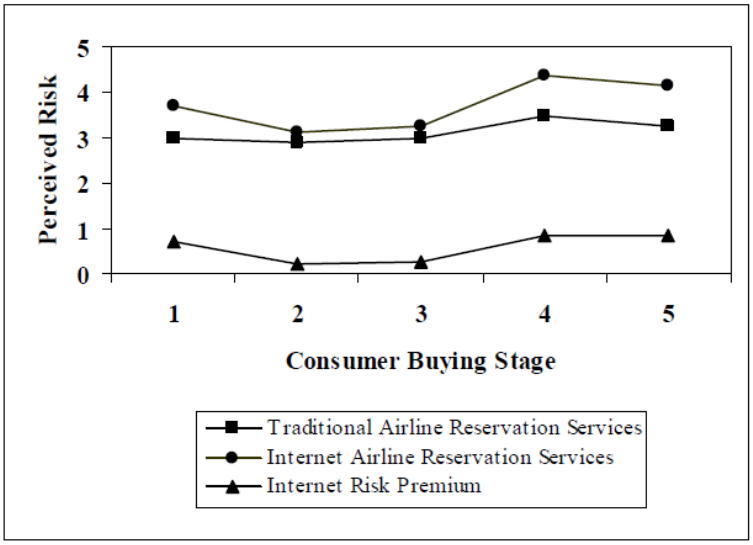
Source : Blackwell et al. (2003); Hawkins et al. (2003)

As mentioned by Cunningham et al. (2004), generally, perceived risk is conceptualized as a typical influence that is addressed during the early stages of the consumer buying process (e.g., Cox, 1967a; Murray and Schlacter, 1990; Murray, 1991; Dowling and Staelin, 1994; Zeithaml and Bitner, 2003).

By investigating the pattern of perceived risk as the consumer progresses through the consumer buying stages, Cunningham et al., (2004) show a significant difference between respondents ($p<0.001$) for all three tests (test on Internet airline reservation services, traditional airline reservation services and the Internet risk premium), which indicate that the respondents introduce systematic variability. Figure 1.3 extracted from their article show that the level of risk perceived regarding to internet airline reservation services does not hold constant across stages. The perceived risk for traditional and Internet airline services display a systematic pattern over the consumer buying process. For Internet services, statistically significant changes are observed in the averages between stages one and two ($p<0.05$), and stages three and four ($p<0.001$). A significant decrease in perceived risk occurs between stages one and two, and a significant increase occurs between stages three and four.

Since the perceived risk for Internet display a systematic pattern over the consumer buying process, it is better to focus our analysis on one single purchase stage. Previous research found that perceived risk have strong effects on pre-purchase stage, that is, adoption/intention to purchase (Park et al., 2004) and post-purchase stage, for example, perceived value (Keh and Sun, 2008); satisfaction (Keh and Sun, 2008); intention to repurchase (Pavlou and Gefen, 2005; Keh and Sun, 2008).

Figure 1.3. Patterns of perceived Risk by Consumer Buying Stage for Internet Airline Reservation Services, Traditional Airline Reservation Services and the Internet Risk Premium



Source: Cunningham et al. (2004), p. 28

Willingness to purchase refers to the degree to which a consumer intends to make a transaction from a certain e-retailer, and purchase is a consumer's actual transaction decision (Kim et al., 2009). The role of perceived risk in influencing the purchase intention is gaining importance and has been analyzed in a number of prior studies (e.g., Gefen et al., 2003). The effect of perceived risk on intention to purchase is one of main concerns for information system and marketing researchers. The relationship between perceived risk and purchase intention has been identified in two approaches with multiple debates. Many studies indicated that perceived risk has no direct effect on purchase intention, but perceived risk can influence purchase intention through the mediators, such as perceived ease of use, or attitude variable (e.g., Gefen et al., 2000; Heijden et al., 2000; Pire et al., 2004; Shivraj and Vikas, 2004; Sweeney et al.,2009). On the other hand, their findings concerning the indirect influence of perceived risk on purchase intention seem at variance with other findings that perceived risk is significantly negatively related to purchase intention (e.g., Murray and Schlacter, 1990;

Pavlou, 2001; Featherman and Pavlou, 2003; Park et al., 2004; Crespo et al., 2009; Kim et al., 2009; Samadi and Yaghoob-nejadi, 2009).

Another major research strand in consequences of perceived risk has examined the link between perceived risk and post-purchase stage. After completing a transaction, consumers confirm their expectation through a post-purchase evaluation process and form their satisfaction level, which affects their future e-loyalty, including repurchase decisions (Kim et al., 2009). The post-purchase process is very different from the pre-purchase process primarily because in the post-purchase phase the consumer has substantial and direct prior experience to draw on. In other words, in the post-purchase evaluation process, the product or service from the e-retailer will be evaluated in the context of the consumer's prior expectations and the actual performance of the product/service as perceived after its consumption (Kim et al., 2008).

"While initial acceptance of IS is an important first step toward realizing IS success, long-term viability of an IS and its eventual success depend on its continued use rather than first-time use" (Bhattacherjee, 2001, p.351). Whereas the completion of the first transaction is an important step in the business-to-consumer (B2C) relationship, the long-term relationship depends not only on the factors that fostered the initial purchase, but also on the outcomes of that initial purchase decision (Oliver, 1993). From a managerial point of view, customer loyalty has long been acknowledged as an underlying objective for strategic marketing planning since it brings about many favorable outcomes to companies. First, it is much less expensive to retain current visitors than it is to seek new ones (Reicheld and Sasser, 1990). It is clear that the conquest of a new customer costs 5 times more expensive than retaining an old customer (Reichheld and Sasser, 1990). Thus, the intense competition generated by the e-commerce results therefore now a growing concern among companies about maintaining consumer's continuance intention to repurchase (Parasuraman and Grewal, 2000).

Further, loyal customers are more likely to discuss past service experiences positively than non-loyal customers, creating a potential for word-of-mouth advertising at no extra cost to the service provider (Shoemaker and Lewis, 1999). Third, it secures the relationship between customer and service provider, when the customer is faced with increasingly attractive competitive offers, or the supplier's own shortcomings. Finally, loyal customers are more

easily accessible than first-timers since organizations usually retain records, making targeted indirect marketing more feasible. This knowledge permits suppliers to precisely target the repeat segment and solicit direct responses to promotions (Reid and Reid, 1993).

Several studies on the relationship between perceived risk and intention to repurchase have been conducted by researchers (e.g., Cunningham, 1967; Sheth and Parvatiyar, 1995; Liang and Huang 1998; Vijayasarathy and Jones, 2000; Liao and Cheung, 2001; Mittal, 2001; Miyazaki and Fernandez, 2001; Liebermann and Stashevsky, 2002; Fosythe and Shi, 2003; Samadi and Yaghoob-nejadi, 2009).

However, prior research hasn't taken into account the importance of continuance behavior and the distinction between acceptance and continuance process (e.g., Davis, 1989; Featherman and Pavlou, 2003; Crespo et al., 2009) by viewing that "continuance as an extension of acceptance behaviors" (Bhattacherjee, 2001, p. 352), in other words, they use the same variables to explain both acceptance and continuance process, however, these pre-acceptance variables cannot hold still throughout purchasing process, such as perceived risk. That's why these studies are unable to explain "why some users discontinue IS use after accepting it initially (the acceptance-discontinuance anomaly)" (Bhattacherjee, 2001, p.352). Bhattacherjee (2001, p.352) draw a conclusion that "current acceptance models provide a limited explanation of, and may sometimes contradict, observed continuance behaviors". Therefore, given the importance of repurchase and the limited research on repurchase, in our study we focus on perceived risk of repurchase stage instead of pre-purchase stage.

1.4 Methodology

1.4.1 Information System Study and Post-positive Perspective

As mentioned by Refaat El Said (2005), information systems research is a complex multidisciplinary field, which needs particular research perspectives. Post-positive

perspective is more appropriate for this research rather than positivism or interpretivism. This study intends to explore the phenomenon under investigation in the different contexts and establish a cause and effect relationships.

Cited by Refaat El Said (2005), Giddens (1984) indicates that post-positivism informs social theorizing and empirical investigation. According to Giddens (1984), we have three levels of understanding of social phenomena. First, the researcher seeks a subjective understanding of the phenomenon under investigation throughout an exploratory phase. Then, the researcher seeks an interpretivist understanding based on the interpretation of the participants' understanding. This leads the researcher, with knowledge gained from literature, to identify the interactions between research constructs and build the research hypothetical model. Finally, the research hypotheses are tested empirically to verify or disconfirm the hypothetical model.

1.4.2 Cross-culture Study Issues

To investigate the impact of culture in perceived risk, a cross cultural survey was deemed adequate. The study was designed as a theoretical study focusing on the examination of structured hypotheses relating the variable of culture with that of antecedents and consequences of perceives risk. In the literature, such studies fall under the label of International Marketing research, comparative research, cross-national Marketing research, or cross-cultural research (Soares, 2004). Cross-cultural research raises a host of practical and theoretical challenges (Boyacigiller and Adler, 1991; Malhotra, 1999; Craig and Douglas, 2001). There are four questions and concerns should be considered.

The first question concerns the selection of research techniques. According to Galliers (1992), information system is seen as social communication systems, embedded in cultural context; multiple perspectives and interpretations must be taken into account when researching this field, where the use of multiple of research techniques is essential (Winfield,

1990). For Krathwohl (1997), the use of a combination of techniques from the quantitative and qualitative is particularly important in social science research.

We gained additional insight in the topic by conducting interviews, allowing us to interpret the data from the questionnaire more accurately. Such a multi-method approach, including interviews and a questionnaire, is advisable in studies involving culture (Leung et al., 2005; Yaprak, 2008). Li (2003) came to a research conclusion based on both personal experience and qualitative methods when quantitative results proved to be inconclusive. Scroggins et al. (2010) also concluded that international cross-cultural research must include both qualitative and quantitative methods and more complex analytical and statistical techniques to establish cultural construct equivalency. Researchers must begin with qualitative methodology to gain an understanding of the nature of the construct of interest in each of the cultures in which research will be conducted. Quantitative methods such as confirmatory factor analysis and structural equation modeling must then be employed to examine the nature and structure of the construct in each culture. A qualitative approach based on an interview and a quantitative approach based on a survey was thus adopted. These issues are discussed in Chapter 3 – Research Methodology.

Second, once the unit of analysis has been clearly defined and the basic parameters of the research design determined, the next step is to establish the comparability of the constructs to be studied as well as measures of these constructs (Craig and Douglas, 2005). The issue of comparability is one that has traditionally haunted cross-national research in the social sciences. An important issue in cross-cultural research is therefore how far to emphasize concepts and constructs that are unique to a given culture or context and how far to emphasize elements that are common across cultures.

Given this dilemma, two alternative approaches or schools of thought - the ‘emic’ and the ‘etic’ – have typically dominated cross-cultural research in the social sciences (Craig and Douglas, 2005). “To incorporate culture-specific elements and effectively build a broader knowledge base, a hybrid or ‘linked’ emic model is suggested” (Craig and Douglas, 2005, p.186). Emic research starts initially in multiple sites. This type of emic approach starts with an emphasis on local knowledge and a local perspective. As a result, it tends to emphasize the

unique features characterizing each context, rather than pan-cultural or etic aspects or interpreting these elements within the local context.

The third concern is about data collection in cross-cultural studies which raises specific questions in terms of construct equivalence at the (I) functional, (II) conceptual, (III) measurement levels, that is, calibration equivalence, translation/linguistic equivalence, metric equivalence, and instrument equivalence (Craig and Douglas, 2005).

The last question concerns sampling within the chosen countries. Given the nature of this comparative study, it was necessary to hold extraneous factors constant so as to isolate the domain of interest. China and France were chosen in this study. A homogeneous sample of students was, then, used for the purposes of this work (Hofstede, 2001; Park et al., 2004; Craig and Douglas, 2005; Keh and Sun, 2008; Kim et al., 2008; Kailani and Kumar, 2011).

1.5 Dissertation Structure

This thesis is divided into eight chapters. The structure follows from the objectives of this study and from the chosen research strategy. The content and composition of the thesis is illustrated in Figure 1.4.

The first chapter provides an INTRODUCTION to the research. The chapter begins with an overview of the motivation for this research. This includes a discussion on the development of online shopping market and the impact of perceived risk on online shopping market. After the general topic, the study goes on to define the research phenomenon, i.e. the influence of perceived risk on consumer's online shopping behavior. After this, the research aims as well as the research questions are defined. The next section of the chapter discusses the research scope and the methodology applied in finding answers to the research question.

In the second chapter the elaboration of the THEORETICAL FRAMWORK is begun by focusing on the existing literature on perceived risk of online shopping, cross-culture

comparative study on perceived risk. We provided a multidisciplinary analytical review of theories and approaches in the three research areas where this research is based: perceived risk in Internet shopping, perceived risk antecedents, and perceived risk consequences. Additionally, research studies related to the effect of cross-nation on online shoppers towards perceived risk are analyzed in order to differentiate this research from similar studies. Presenting a more elaborated framework of the perceived risk regarding to online shopping concludes the third chapter.

In chapter 3 RESEARCH METHODOLOGY that this research is based on is elaborated. The research methodology framework is also presented in this chapter. The chapter 3 then discusses and justifies the important notions in the research such as the cultural comparison approaches, research reliability, the sampling technique, product selection and data analysis methods.

In Chapter 4 the empirical part of the study begins. The chapter re-evaluated Hofstede's cultural values and investigated whether cultural values changes over time. Culture values defined by Hofstede (1984; 2001) have been largely confirmed in this test. Hofstede's cultural dimension individualism/collectivism therefore can be used in our research.

The chapter 5 provides a description of the HYPOTHESES AND MODEL DESIGN. The need for an exploratory phase and semi-structured in-depth interviews are discussed first. After this, the sample, instrument design, instrument administration as well as data analysis are addressed. The hypotheses and research model based on the literature and the results of interviews are then proposed.

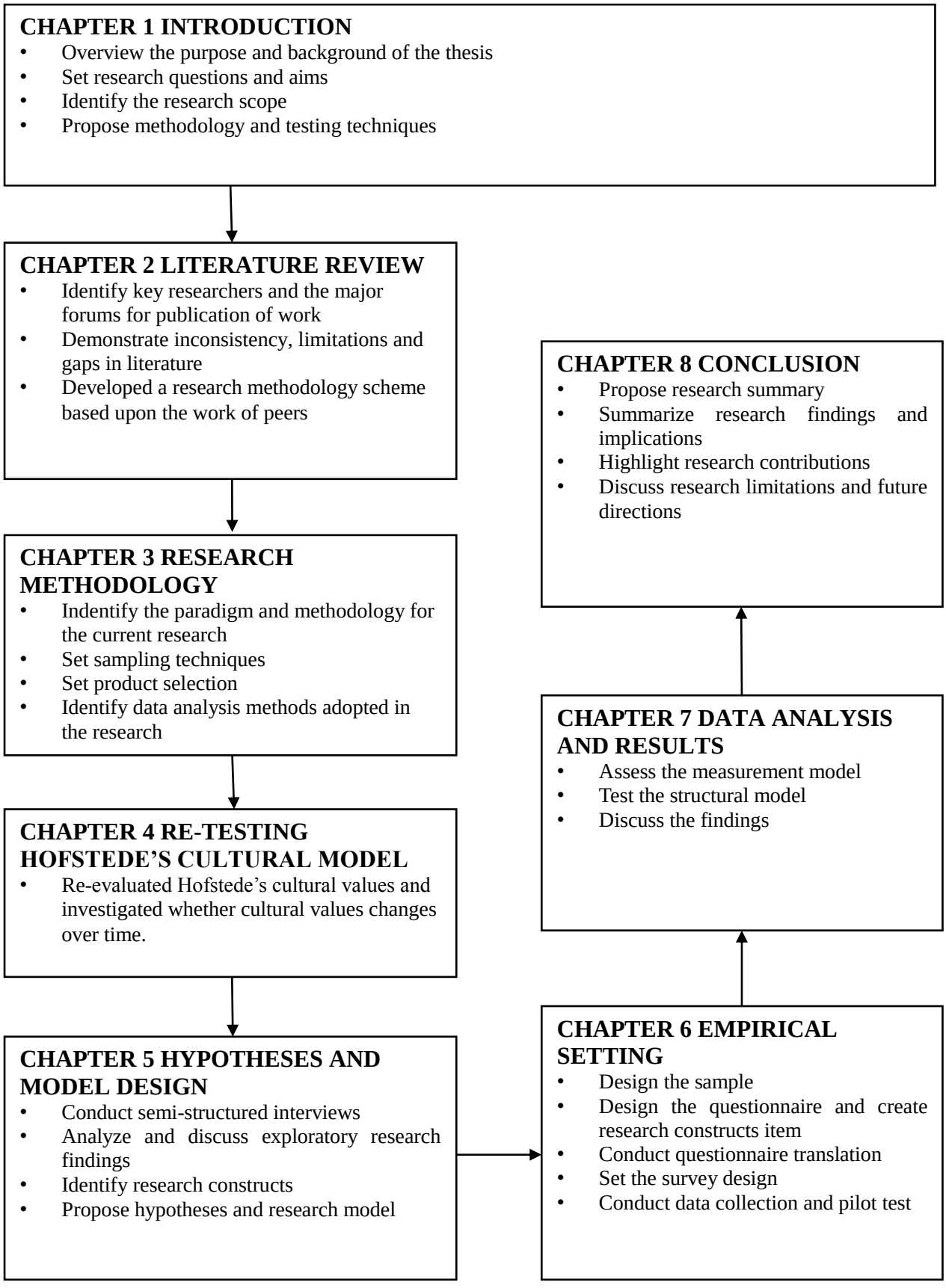
In chapter 6 MODEL TESTING PROCESS is elaborated. In this chapter, research constructs are firstly identified, hypotheses are spelled out and the hypothetical model is confirmed within a model designing process. Second, a model testing phase that includes a testing process in which empirical testing of the research hypotheses is conducted.

In Chapter 7 DATA ANALYSIS AND RESULTS are discussed. An analysis process where statistical analysis of the data is conducted, and research hypotheses are verified. The chapter then discusses the results in terms of interpretation of each hypothesis, linking findings with

previous work in the field. The chapter ends with an overall conclusion of results and findings.

FINDINGS AND FURTHER RESEARCH is concluded in Chapter 8. This final part of the study includes a discussion of the outcomes and experiences from the study. First, a short summary of the study is presented. After this, the conclusions of the study are presented. This is done by recalling the defined research questions at the beginning of the study and by giving answers to the questions. After summing up the answers, the theoretical as well as managerial contributions that this study has provided are discussed. At the end, the limitations of the present research and some possible avenues for future research in relation to the topic of this research are addressed.

Figure 1.4. Illustration of the Structure and Content of the Dissertation



CHAPTER 2: PERCEIVED RISK OF INTERNET SHOPPING AND CULTURE

2.1 Overview

Despite the benefits of online commerce over traditional commerce and optimistic predictions for future growth of online shopping, negative aspects associated with this shopping method are also becoming critical (Ko et al., 2004). Consumers perceive a higher level of risk when purchasing on the Internet as compared with traditional forms of shopping. These perceived risks associated with online shopping in turn have a profound effect on consumer decision making. Besides, it is widely recognized that national culture constitutes an important influence on many dimensions of human behavior and decision-making (Soares et al., 2007) and this extends to e-commerce (Kailani and Kumar 2011). Given that risk related issues are a culturally sensitive consumer behavior dimension (Hofstede, 1984) and risk taking behavior constitutes an important dimension of consumer behavior across a broad range of products and situations (Soares, 2004), this research intends to enrich perceived risk theory and highlight the impact of cultural values on perceived risk.

This chapter aims to provide theoretical foundations that guide the recent research. This chapter will start by providing an overview of e-commerce development in China and in France. After that, we will discuss the mainstream consumer purchase theories on which the majority of established models on electronic consumer behavior are based, that is, theory of Reasoned Action (Fishbein and Ajzen, 1975), the theory of Planned Behavior (Ajzen, 1985), the Technology Acceptance Model (Davis, 1989) and its modifications, and Post-acceptance Model of IS Continuance and the Valence Framework. These consumer purchase theories help us better understand the mechanism of consumer behavior and provide us the theoretical guide.

Then the following section will discuss the concept of perceived risk, the determinants of perceived risk, and the consequences of perceived risk, the cultural models, and the influence

of culture on perceived risk, as the main concepts in the recent research. The discussion will highlight the findings and the limitations of the previous empirical studies in this research strand. Reviewing the previous research guides the current research.

2.2 Internet Shopping in France and in China

The development of the Internet has strongly impacted the worldwide marketing environment. There is little doubt that the Internet applications and the number of users have grown enormously (Ko et al., 2004). The Internet's great degree of adaptation, coupled with its relatively unique characteristics of interactivity and personalization, increases the chances of innovative business strategies. Online shopping is one of revolutionary changes brought forth by the Internet (Lohse and Spiller, 1998), as indicated by Ko et al. (2004).

E-commerce has recently developed as a fast growing field of the global marketing. The use of Internet opens a new door of possibilities for businesses in numerous areas, such as, customer service, lower transaction costs, marketing, and customer retention (Kailani and Kumar, 2011). E-commerce has been characterized as "the act of buying or selling goods, services, or information over an electronic network" (Willis, 2004, p. 54). The explosive development of the e-commerce has changed many aspects of daily life. Consumers and businesses have the ability to shop from their homes or offices for a variety of products and services from all over the world.

Both buyers and sellers can benefit from this new form of trade. That's the reason why e-commerce can emerge and growth. Buyers benefit from the shopping mode of e-commerce. Ultra speed, shopping efficiency, lower costs and 24-hour service and supporting are the advantages of online commerce over traditional commerce (Hsu, 2006). From this perspective, online shopping is one of the most rapidly growing forms of shopping, with sales growths rates that over strip buying through traditional retailing.

For sellers, e-commerce provides several benefits over conventional ways of selling products and consumer service, such as lower transaction costs, more efficient distribution, and greater market access quick adjustment to market situations and the ability to deal with customers directly (Hsu, 2006). Internet provided companies with the ability to expand business reach through e-commerce (Kailani and Kumar, 2011).

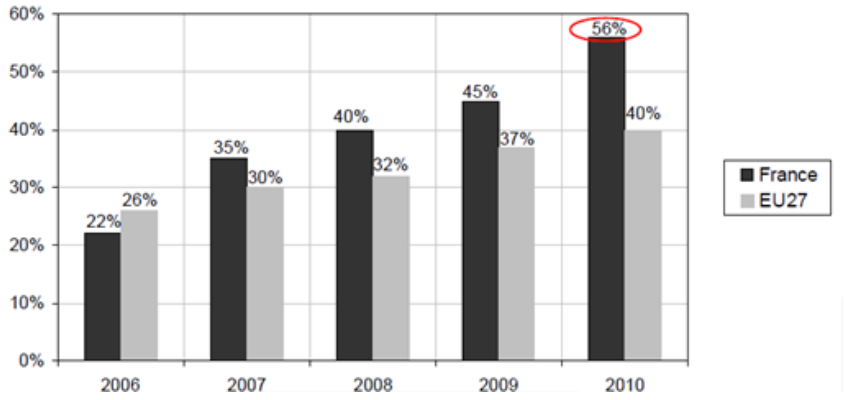
According to E-commerce and development report 2004 from United Nations Conference on Trade and Development, at the end of 2003 nearly 676 million people or 11.8% of the total population of the world) had access to the Internet. This represents an increase of 49.5 million people (i.e. 7.8%) compared with the figures at the end of 2002. The number of Internet hosts worldwide grew by 35.8% between January 2003 and January 2004, reaching a total of over 233 million, which represents a doubling of the growth rate in 2002. We are going to present an overview of internet users and e-commerce development in the two economies, that is, France and China.

2.2.1 E-commerce in Europe, specifically in France

E-commerce continues its upward trend in Europe. The latest “B2C E-Commerce Report 2011” presented by market research firm yStats.com provides a detailed overview of B2C e-commerce in Europe. The highest overall B2C e-Commerce revenue in 2010 was reported in the UK, followed by Germany, France, Spain and Italy. Furthermore, the number of online shoppers in Europe is predicted to surpass 200 million by 2015. In 2010, almost half of all individuals aged 25-34 purchased products online in the category "clothes and sports goods". The report shows that in France in the first quarter of 2011. eBay, Amazon, Cdiscount and PriceMinister were the leading competitors in B2C e-commerce measured by internet traffic.

According to the “France B2C E-Commerce Report 2011” by yStats.com GmbH & Co. KG, B2C e-commerce sales in France rose by more than 20% in 2010 (versus 2009). 56% of the French population shopped online in 2010, while the EU average accounted for 40% (c.f. figure 2.1). The number of online shoppers is increasing, with a growth of 12% observed in 2010 compared to the previous year. “Travel/Tourism” (58%) was the most popular category in French B2C E-Commerce in 2010, followed by “Services” (50%). In 2010, almost half of the French population aged 25-34 ordered “Clothes, Sports Goods” online. eBay was the leading French E-Commerce site in terms of unique visitors in the first quarter of 2011.

Figure 2.1. Penetration of Internet shoppers in France, compared to EU27 Average (in %) 2006-2010



Source: France B2C E-Commerce Report 2011" by yStats.com GmbH & Co. KG

2.2.2 E-commerce in Asia, specifically in China

Asian area is also experiencing internet evolution. According to E-commerce and development report 2004 from United Nations Conference on Trade and Development, developing countries account for more than 36% of all the Internet users in the world and their share in the Internet population of the world grew by nearly 50% between 2000 and 2003. Noted that Internet users in the developing world are concentrated in certain countries: China, the Republic of Korea, India, Brazil and Mexico, account for 61.52% of them. Almost 75% of the growth in the number of Internet users in the world occurred in the developing world. In spite of rapid rates of improvement in the penetration ratios of developing countries, these remain ten times lower than the average of the developed world. The number of Internet hosts worldwide grew by 35.8% between January 2003 and January 2004, reaching a total of over 233 million, which represents a doubling of the growth rate in 2002. In terms of number of websites, as of June 2004 there were over 51,635,284 websites worldwide, 26.13 per cent more than a year before.

According to Free Encyclopedia of Ecommerce, with a tremendous population, several highly developed countries, and a rapidly escalating Internet penetration, Asia is among the most promising regions for e-commerce development. In March 2000, about 69 million people had access to the Internet in Asia, compared with 83 million in Europe, although internal disparities and a series of logistical difficulties hampered some of the most optimistic expectations for online commerce in the region. James Wang, an Internet analyst in Taiwan, told Far Eastern Economic Review in late 2000 that, when it comes to e-commerce, "Asia is where the U.S. was two to three years ago. Once consumers feel more comfortable buying on-line, it'll start to pick up."

We take China as an example to demonstrate the rapid development of e-commerce in Asia. China has been considered as one of the countries which have shown the fastest information technology adoption trends. According to CNNIC[6] (2010), online shopping is becoming an important shopping mode in China. In 2008, online shopping market transactions accounted for 1.1% of total retail sales. The proportion rise to 2% in 2009, and increased to 3.3% in 2010. In 2010, annual online shopping transactions amounted to 523.1 billion yuan[7], increasing 109.2% compared with 2009. Meanwhile, the number of Chinese e-shoppers continues growing; the rate of online shopping penetration is increased in 2010. As of December 2010, online shopping penetration rate has reached 35.1% (CNNIC, 2010). Online shoppers have reached 161 million. China has some hugely popular and advanced consumer websites. Taobao is the biggest one, with a share of 83.8% in the C2C market, followed by PaiPai (9.0%) and eBay's Eachnet (7.2%). The B2C market is more evenly shared, with the three main players being Dangdang (16.2%), Amazon/Joyo (15.4%), and 360buy (15.0%) (CNNIC, 2010). Most of them arrange information in very detailed categories, allowing filtering product search results by brand, type, technical specifications, price range, etc.

[6] China Internet Network Information Center

[7] *Yuan* is the base unit of a number of modern Chinese currencies. The Renminbi is the official currency of the People's Republic of China (PRC). It is abbreviated as RMB, and the units for the Renminbi are the Yuan (元), Jiao (角), and Fen (分) The *yuan* is the primary unit of account of the *Renminbi*. Exchange Rate: Current Exchange Rate with U.S. Dollar: $1 = 6.59 *Yuan* RMB (Feb. 2011) See http://en.wikipedia.org/wiki/Chinese_yuan

2.3 Consumer Purchase Theories

Empirical studies in any strand of research are usually guided by particular theories. Research on consumer behavior is mainly based on a number of theories that forecast and explain human behavior (Refaat El Said, 2005). Our research is based on the theory of Reasoned Action (Fishbein and Ajzen, 1975), the theory of Planned Behavior (Ajzen, 1985), the Technology Acceptance Model (Davis, 1989) and its modifications, Post-acceptance Model of IS Continuance and the Valence Framework, on which the majority of established models on electronic consumer behavior are based. These consumer purchase theories help us better understand the mechanism of consumer behavior and provide us the theoretical guide. Our interest is not in the explanation of these theories, but in understanding how perceived risk integrates into consumer purchasing process and influence consumer decision making in the light of these theories.

2.3.1 The Theory of Reasoned Action and the Theory of Planned Behavior

The Theory of Reasoned Action (TRA) (Fishbein and Ajzen, 1975) and the theory of Planned Behavior (TPB) (Ajzen, 1985) are well known intention models in predicting and explaining human behavior across a wide variety of domains (Ajzen, 1985). The two theories assert that behavior is influenced by behavioral intention, and that a major determinant of intentions is the consumer's attitudes towards the behavior (Refaat El Said, 2005).

According to the TRA (Ajzen and Fishbein, 1980), behavioral intention is a predictor of actual behavior. Accordingly, we extend the transaction decision to two parts: willingness to purchase and completion of purchase. Willingness to purchase refers to the degree to which a consumer intends to make a transaction from a certain e-retailer, and purchase is a consumer's actual transaction decision (Kim et al., 2009).

As an example of application of TRA and TPB in e-commerce models, Jarvenpaa et al. (2000) generated and validated a research model suggesting that the perceived reputation and the perceived size of an online store influence consumer's trust in that store. Accordingly the good perceived reputation and perceived size build a positive attitude that will lead to purchase intention. They designed the model based on the understanding that perceived reputation, perceived size, and trust are beliefs that the consumer has formed based on the information about the merchant (Refaat El Said, 2005).

The TRA (Fishbein and Ajzen, 1975) provides the underlying rationale for the effects of a consumer's beliefs on his or her purchase intentions. According to the TRA, one's belief or attitude towards a behavior determines one's intention to perform a behavior (Kim et al. 2009). The TPB (Ajzen, 1985) complimented the TRA by adding the perceived behavioral control as a supplementary factor affecting behavioral intention (Refaat El Said, 2005). According to Jarvenpaa et al. (1999, cited by Refaat El Said, 2005), the TRA and TPB have been evaluated in many settings, including IT usage behavior. The Internet shopping behavior shares the volitional nature of the phenomenon which TRA is capable to explain and predict.

Furthermore, Jarvenpaa et al. (2000) indicated that the direct influence of perceived risk on the intention can be explained by the notion of perceived behavioral control in the theory of planned behavior (Ajzen, 1985). By setting the influence of perceived risk on the intention to purchase in the e-commerce context, the authors (2000) suggested that perceived risk associated with online shopping may reduce the consumer's perception of behavioral control, accordingly perceived risk may negatively influence willingness to purchase online (Refaat El Said, 2005).

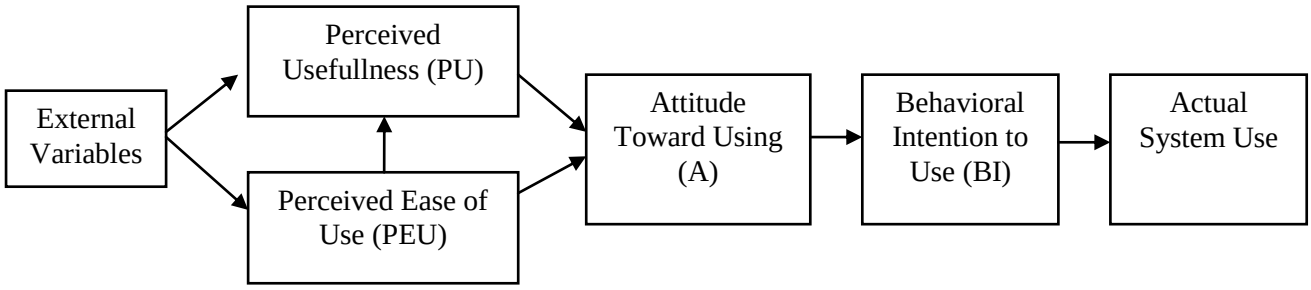
2.3.2 The Technology Acceptance Model and its Modifications

Based on TRA, Davis (1989) introduced the Technology Acceptance Model (TAM), for predicting IT usage. As indicated by Park et al. (2004), TAM seems the most widely accepted

model among IS researchers since the model is supported by the richness of recent empirical studies (Morris and Dillon, 1997). The purpose of TAM is to explain and predict IT acceptance before users have experience with a system.

The TAM model posits that perceived usefulness and perceived ease of use are significantly associated with actual systems use. Where perceived ease of use (PEU) is defined as "the degree to which a person believes that using a particular system would be free of effort" (Davis, 1989, p. 320) and perceived usefulness (PU) is "the degree to which a person believes that using a particular system would enhance his or her performance" (Davis, 1989, p. 320). As illustrated in Figure 2.2, TAM predicts user acceptance based on two specific behavioral beliefs: perceived ease of use and perceived usefulness, which determine and individual's behavior intention (BI) to use an information technology (Park et al. 2004).

Figure 2.2. Davis' Technology Acceptance Model (TAM)



Source: Davis (1989)

As an example of application of TAM, Gefen and Straub (2003) generated and validated a research model suggesting that perceived usefulness of the e-commerce site would affect the purchase intention, and that the perceived usefulness would be on its part affected by perceived ease of use of the e-commerce site and social presence on the web site (Refaat El Said, 2005). Furthermore, Featherman and Pavlou's (2003) proposed an Extended E-commerce Acceptance Model that includes the role of perceived risk in shaping an

individual's behavioral intention to use technology, with the diverse dimensions of perceived risk.

2.3.3 Post-acceptance Model of IS Continuance

It is clear and important to note that "while initial acceptance of IS is an important first step toward realizing IS success, long-term viability of an IS and its eventual success depend on its continued use rather than first-time use" (Bhattacherjee, 2001, p. 351). It costs the 5 times more expensive to conquest a new customer costs than to retain an old customer (Reichheld and Sasser, 1990). In addition, a growing concern exist among companies about maintaining consumer's continuance intention to repurchase due to the intense competition in e-commerce marketing (Parasuraman and Grewal, 2000).

However, prior research hasn't taken into account the importance of continuance behavior and the distinction between acceptance and continuance process (e.g., Davis 1989; Featherman and Pavlou 2003; Crespo et al 2009) by viewing that 'continuance as an extension of acceptance behaviors' (Bhattacherjee, 2001, p. 352), in other words, they explain both acceptance and continuance process using the same variables. However, these first purchase variables cannot hold invariable throughout purchasing process, such as perceived risk.

The post-purchase process is very different from the initial purchase process. As indicated by Kim et al. (2008), consumer's post-purchase intention depends not only on the factors that influence the first purchase, but also on the consequences of that first purchase decision. In the post-purchase process, some substantial factors will affect consumers' evaluation on the product or service, such as, the consumer's prior expectations (Kim et al., 2008). That's why these studies are unable to explain "why some users discontinue IS use after accepting it initially (the acceptance-discontinuance anomaly)" (Bhattacherjee, 2001, p. 352).

Bhattacherjee (2001, p. 352) draw a conclusion that "current acceptance models provide a limited explanation of, and may sometimes contradict, observed continuance behaviors". From this context, in recent study we consider that continuance behavior is independent from acceptance behavior, although Crespo et al (2009) reported that TAM can be used to analyze both the initial adoption of e-commerce and the intention to purchase again. This post-purchase process can be explained by expectation-confirmation theory (ECT). According to ECT, confirmation is the evaluation process of comparing expectation versus perceived performance across two different time periods (Oliver, 1980).

2.4 Perceived Risk in E-commerce

Despite the benefit of online commerce over traditional commerce, the amount of money involved remains very low. The total sales of online shopping represent only a small percentage of stay-at-home shopping sales (Cases, 2001). Negative aspects associated with this shopping mode are also becoming critical (Ko et al., 2004). Consumers are worried about their credit cards and disclosing personal information when purchasing on the Internet (Pallab, 1996). Consumers are also concerned about purchasing a product from the sellers without physically examining the products (Ko et al., 2004).

Consumers therefore perceive a higher level of risk when purchasing online compared with traditional shopping form. Consumers' perceived risks associated with online shopping have a critical effect on their decision making. It is suggested that perceived risk is a powerful factor at explaining consumers' purchase behavior since consumers are more often motivated to avoid the potential loss than to achieve purchasing success (Mitchell, 1999). From a managerial standpoint, understanding consumer perceived risk is of great concern. Perceived risk therefore has been a topic of study for many researchers and marketing managers (Kalakota and Whinston, 1996).

The concept of perceived risk has a rich history in information system and marketing. Consumer behavior when faced with risk has been the subject of numerous studies over the

past 40 years (Bauer, 1960; Mitchell, 1999; Cases, 2001, Zheng et al.s, 2012) ever since risk-taking behavior was introduced by Bauer (1960) as a possible measure of consumer attitude towards a purchase in the marketing and consumer behavior literature.

The literature has focused primarily on analyzing a conceptual model of consumerperceived risk (Kogan and Wallach, 1964; Arndt, 1967a; Arndt, 1967b; Cox, 1967a; Cunningham, 1967; Schiffman, 1972; Ross, 1975; Hoover et al.,1978; Mitchell, 1999; Pires et al., 2004); the different dimensions of risk, including financial, physical, social, and psychological dimensions (Cunningham, 1967; Ingene and Roselius, 1971; Jacoby and Kaplan, 1972; Kaplan et al., 1974; Peter and Ryan, 1976; Hughes, 1985; Stone and Gronhaug, 1993); risk reduction strategies (Cox, 1967a; Roselius, 1971; Guseman, 1981; Kotler, 1984; Lumpkin, 1986; Mangold et al., 1987; Akaah and Korgaonkar, 1988; Tan, 1999; Soopramanien et al., 2007; Samadi and Yaghoob-Najadi, 2009; Kim, 2010); the relationship between perceived consumer risk and product class/features (Cunningham, 1967; Taylor, 1974; Schaninger, 1976; Hoover et al., 1978; Havlena and DeSarbo, 1991; Ueltschy et al., 2004); and perceived risk across purchase situation (Taylor, 1974; Assael, 2004; Cunningham et al., 2004; Pavlou and Gefen, 2004; Shivraj and Vikas, 2004; Kim et al., 2008).

The introduction of the new mode of shopping, the Internet, has received the new debate on the perception of risk (Cases, 2001). A critical number of studies were conducted to investigate the dimensions of perceived risk emerged in this new shopping mode (McCorkle, 1990; Cases, 2001; Featherman and Pavlou, 2003; Crespo et al., 2009; Comegys et al., 2009; Ko et al., 2010;). As indicated by Li and Zhang (2002), two main categories of perceived risk emerge in the process of online shopping. The first is the perceived risk associated with product/service and includes functional loss, financial loss, time loss, opportunity loss, and product risk. The second is the perceived risk associated with context of online transactions, and includes risk of privacy, security, and non repudiation. Among them, the influence of financial risk, product risk, and concern for privacy and security is significant. Perceived risk has also been applied to both product and service categories in the Internet shopping to better predict evaluation and adoption (Li and Zhang, 2002). For example, Cases (2001) conducted a study on online consumers' perceived risk in the clothing purchase; the study of Featherman and Parlou (2002) employed elements from the perceived risk literature to

predict consumer adoption of e-services. The following section details the concept of perceived risk according to these areas.

2.4.1 Concept of Perceived risk

2.4.1.1 Subjective Risk Perception

According to Oltedal et al. (2004) risk is related to both the probability and the consequences of an event. Most definitions of risk include an estimate of the probability for a negative event to happen (Brun, 1994). Adams (1995, p. 69) says "risk, according to the definitions most commonly found in the safety literature, is the probability of an adverse future event multiplied by its magnitude". However, an individual's own estimate of risk may be very different from the objective estimate (Boholm, 1996). Objective risk is calculated from statistics and probability distributions, but these are completely independent from an individual's knowledge and concerns related to the source of risk (Ulleberg and Rundmo, 1996).

Perceived risk varies from culture o culture and from one person to antoher. Perception has been defined as "the process of selecting, organizing and interpreting information in order to create an image of the world" (Kotler and Keller, 2006, cited by Santana and Loureiro, 2010, p. 162). "Perception depends not only on the physical stimulus but also on the relation between the stimulus and the environment and on the internal conditions of the consumer" (Santana and Loureiro, 2010, p. 162). Therefore, perceived risk depends upon how an individual understands and experiences a phenomenon. As indicated by Oltedal et al. (2004), many factors influence perception of risk, such as familiarity with the source of danger (Ittelson, 1978), control over the situation (Rachman, 1990), and the dramatic character of the events (rare events tend to be overestimated, while the frequency of common events tend to be underestimated).

In the terms of consumer perceived risk, Cunningham (1967, p. 108) distinguished risk and perceived risk since "the consumer can only react to the amount of risk she actually perceived and only to her subjective interpretation of that risk". In other words, the important perspective for consumer behavior is not whether there is objective risk in consumer decisions, but the subjective risk perceived by consumers (Soares, 2004).

Risk has been studied in several disciplines. For instance, risk research in Psychology attempts to answer the question "who fear what and why?", which have centered on the cognitive aspects in risk perception and management (Soares, 2004). In addition, according to Weber and Bottom (1989, cited by Soares, 2004), the role of perceived risk on choice has been investigated in a variety of areas such as psychology (e.g. Coombs, 1969), marketing (Bettman, 1973), and economics (Markowitz, 1959; Libby and Fishburn, 1977).

In marketing, Soares (2004) indicated that consumption contains a risk dimension as well. Consumers face risk since the consequences of consumers' choices could only be known in the future (Soares, 2004). The view of consumer behavior as risk-taking was first presented in 1960. The concept is based on the idea that:

"Consumer behavior involves risk in the sense that any action of a consumer will produce consequences which he or she cannot anticipate with anything approximating certainty, and some of which at least are likely to be unpleasant"(Bauer, 1960, p.24).

Since risk-taking behavior was introduced by Bauer (1960) as a possible measure of consumer attitude towards a purchase in marketing literature and consumer behavior, perceived risk has been defined in several ways, with considerable debate occurring on the merit of each (Pires et al., 2004). Cox (1967a, p. 10) contended that "risk handling is largely concerned with dealing with uncertainty, that is, with information handling". This perceived risk may be reduced by either reducing the amount at stake and/or reducing the subjective uncertainty that loss would not occur.

Following the propositions of Bauer (1960), first analyses of perceived risk in the context of consumer behavior agree in defining this construct as a combination of two components: the probability of a loss (i.e. that which is at stake) and the subjective feeling of the importance

(or unfavorable consequence) attributed to that loss (Kogan and Wallach, 1964; Cox, 1967a; Cunningham, 1967). Risk is "a function of the importance or magnitude of the goals to be attained, the seriousness of the penalties that might be imposed for non-attainment and the amount of means committed to achieving the goals" (Cox, 1967a, p. 38). For each purchase decision, the consumer will have a set of buying goals, or expected outcomes of the purchase. Therefore, perceived risk is a measure of the possible or expected dissatisfaction with the purchase, based on the buying goals of the consumer. Risk is most relevant in the alternative evaluation stage of decision-making, but also in other stages of the buying process (Soares, 2004).

While most subsequent research has employed these two dimensions specifically (the probability of a loss and the subjective feeling of unfavorable consequences), others have used a variant two-dimensional definition such as uncertainty and importance (Schiffman, 1972; Arndt, 1967b in Ross, 1975), and some use just one dimension (e.g. uncertainty only, Arndt, 1967a, in Ross, 1975). Some authors such as Sjoberg (1980) even criticize this conception of perceived risk advanced by Kogan and Wallach (1964), Cunningham (1967) and Cox (1967a) as they consider it too specific to cover such an ambiguous variable (Crespo et al., 2009). He notes three broad classes of meaning: those concerned with the probability of negative events, those concerned with these negative events themselves measured in some suitable way, and those concerned with a joint (Crespo et al., 2009; Mitchell, 1999). Following this approach, Stone and Winter (1987) break away from the expectation-value traditional normative orientation and consider the perceived risk exclusively as a subjective expectation of loss (Mitchell, 1999, in Crespo et al., 2009).

The weight of empirical research has favored a definition that has two components proposed by Cunningham (1967). Consequently, the definition of perceived risk as underlying this dissertation contains:

a) An interdisciplinary perspective, in which;

b) The probability of loss from the clothing purchase in the Internet;

c) and the subjective importance of that possible consequence.

2.4.1.2 Perceived Risk as Role of Positive Anticipated Emotion

Most marketing studies of risk have viewed risk as negative. Bauer (1960) argued that the consumer perceives risk in the sense that any action will produce unpleasant consequences which he cannot anticipate. However, his (1960) theory of perceived risk in marketing provides only incomplete answers to the understanding of risk. The concept of risk still remains confined to a broadly normative and rational paradigm (Ayadi, 2010). While risk entails a potential unpleasant consequences for individuals, it also gives them the possibility of being rewarded (Leigh, 1999).

Some studies (Sjöberg et al., 2004; Soares, 2004; Ayadi, 2010) are opposed to the traditional view based on an analytical and cognitive approach to examine risky situations. Ayadi (2010) indicated that perceived risk theory cannot ignore the affective component, which takes into account the possible effects of an affective assessment of the consumption situation in the risk-taking experience. According to Ayadi (2010), the consumer may seek specific benefits in consumer risk-taking behavior which is considered as a form of consumption experience. In the study of Ayadi (2010), he takes betting and gambling as the examples of risk-taking behavior, which almost doubled between 1990 and 2004. It seems that customers are deliberately looking for risk-taking in certain kinds of consumption (Ayadi, 2010).

Similarly, Soares (2004) indicated that research in Psychology has shown that individuals display risk-averse and risk-seeking behaviors across a wide variety of situations. She (2004) found that research in this area has conceptualized risky choice as a type of avoidance-avoidance conflict based on the idea that most consumers are risk-averse. However, the unexpected consequences of perceived risk can in fact be negative or positive. Zuckerman (1994, p. 27) acknowledged that “risk taking is a correlate of sensation seeking”. “Sensation seekers do not engage in risky behavior for itself; nor do they try to maximize risk, they are however, willing to accept the risks associated with novel and intense experiences” (Soares, 2004, p. 64).

Thus consumers' perceived risk can be considered as unexpected negative consequences or positive consequences, in other words, consumers can be risk-averse, while be risk-seeking. In our study, the objective of the research is to confirm the cultural impact on perceived risk regarding to online shopping. Perceived risk of online shopping can be thought as an obstacle which reduces the consumers' intention to purchase or repurchase on the Internet, if the consumers perceive risk as the negative consequences; on the other hand, perceived risk of online shopping can also be considered as a pusher which increase the consumers' intention to purchase, if the consumers are risk-seeking and they want to seek pleasure and exciting sensation from the online shopping.

Given that perceived risk is mainly considered as a negative factor which impedes the development of online shopping in the eyes of marketers and managers, thus in our study, perceived risk is only conceptualized as the negative consequences.

2.4.2 Perceived Risk across Product Categories

According to Ueltschy et al. (2004), perceived risk has been shown to vary across product category (Chaudhuri, 1998; Hoover et al., 1978) and between goods and services (Zeithaml and Bitner, 2000). Cited by Soares (2004), Taylor (1974, p. 60) suggested that "empirical research will have to be 'purchase' specific and that it may be exceedingly difficult to generalize from one study to the next". Risk research has focused mostly on specific products, services, or buying situations.

Mitchell (1999) indicated that many studies have examined fairly low-cost convenience food and nonfood stuffs. Food products have been a main product category in perceived risk studies over the years. Studies (Johnson and Andrews, 1971; Deering and Jacoby, 1972; Kaplan et al., 1974; Hampton, 1977; Derbaix, 1983; Laurent and Kapferer, 1985) have shown that the higher value and more involving products are more risky than the lower value low-involvement convenience products. The most popular products studied have been deodorant,

headache remedy, coffee, car and TV. For example, Derbaix (1983) found that for goods with highly visible attributes, psychological risk was more important than others. Financial risk came first for durable and expensive goods, whereas for nondurable goods physical risk is more important (Mitchell, 1999). On the other hand, some studies examined only complex consumer products (e.g. Hisrich et al., 1972; Peter and Tarpey, 1975; Pras and Summers, 1978; Lumpkin and Massey, 1983; Asabi, 1986).

Based on the literature review on perceived risk in the both online and offline shopping context, perceived risk has been adopted to investigate a variety of product categories (Tiangsoongnern, 2007). Table 2.1 presents examples of studies examining perceived risk across product categories. In the context of traditional shopping environment, perceived risk is studied by researchers in a variety of product class ranging from convenience, low involvement products such as food, daily hygienic products, and apparel (Jacoby and Kaplan, 1972; Kim and Lennon, 2000) to durable products and high involvement products such as automobiles (Srinivasan and Ratchford, 1991).

Table 2.1. Previous Studies on Perceived Risk across Product Categories

Products	Shopping mode	References	Results and Implications
Apparel (i.e., suit, overcoat, dress shoes); drug (i.e., toothpaste, vitamins, aspirins); hygienic (i.e., deodorants, razor blades); recreational (i.e., sports cars, color TV, playing cards)	Offline	Jacoby and Kaplan, 1972	Similar types of products had similar risk types (e.g., performance, financial). Overall risk could be explained by several risk types.
Convenience products (e.g., deodorant, headache pill, coffee, car, TV)	Offline	Kaplan et al., 1974; Laurent and Kapferer, 1985; Mitchell, 1999	Higher value more complicated and more involving products were more risky than products less in those characteristics.
Grocery (e.g., soft drinks)	Offline	Wu et al., 1984	Risk taking was positively associated with the number of generic products purchased, but risk takers would not routinely purchase generic items perceived as high risk.

Source: Tiangsoongnern (2007)

Table 2.1. Previous Studies on Perceived Risk across Product Categories (continued)

Products	Shopping mode	References	Results and Implications
Foods (i.e., Kentucky)	Offline	Roseman and Kurzynske, 2006	There was a relationship between food safety perceptions and behaviors. Kentucky consumers who perceived higher risks exhibited safer food handling behaviors.
Organic food (e.g., vegetable, fruit)	Offline	Gifford and Bernard, 2006	The potential benefits from organic growing methods and perceived risk from conventional agricultural methods increased the purchase likelihood of organic food.
Apparel TV shopping	Offline	Kim and Lennon, 2000	The amount of information perceived from a TV shopping segment selling apparel was negatively related to perceived risk and positively related to purchasing intention.
Automobile	Offline	Srinivasan and Ratchford, 1991	Perceived risk had a positive relationship with benefits of information search. Benefits of information search were positively related to amount of information search (e.g., time taking, number of dealer visit).
17 consumer products (e.g., books, clothing, computer, cosmetic, foods, hygienic, music, sporting goods, toys, electronics)	Online	Miyazaki and Fernandez, 2000	Prevalence of privacy and security statements was not related to perceived risk. However, percentage of privacy and security statements in a category was positively related to category-purchase intention.
Books	Online	Jarvenpaa et al., 1999	Higher trust in online seller decreased perceived risk which increased a buyer's willingness to purchase online.
CDs	Online	Heijden et al., 2003	Reduced perceived risk increased trust, and attitude towards online purchasing which increased a buyer's intention to purchase online.
Textbooks	Online	Dillon and Reif, 2004	Consumer risk and shopping experience perceptions influenced experienced online purchasing decision more than customer service.
20 consumer products (e.g., books, computer software, travel and accommodation, motives and music, clothing, gifts, toys)	Online	Doolin et al., 2005	Perceived risk was negatively related to the amount and frequency of online purchasing.

Source: Tiangsoongnern (2007)

Additionally, as indicated by Ueltschy et al. (2004), services are perceived as being riskier than goods to purchase, due to their intangible nature (Murray and Schlacter, 1990).

Similarly, Mitchell (1999) acknowledged that a number of authors have shown that services are riskier than products (Lewis, 1976; Guseman, 1981; Mitchell and Greatorex, 1993). The reason to explain this phenomenon is that "the inherent properties of services, i.e. heterogeneity, perish ability, inseparability and intangibility which undermine consumer confidence and increase the perceived risk, mainly by augmenting the degree of uncertainty in the decision" (Mitchell, 1999, p. 175).

With online purchasing, virtually all goods and services are intangible, so consumers perceive more perceived risk when they purchase online than offline. In the context of online shopping, the research has been limited to only a few product categories, which makes the generalization about perceived risk's impact difficult to determine (Miyazaki and Fernandez, 2000). Research on the role of perceived risk in online purchases has been limited to four product categories; books, music, CD's and computer software (D'Alessandro et al., 2012).

Furthermore, different types of products seem to evoke different reduction strategies for reducing risk (Nelson, 1970; Mangold et al., 1987; Soopramanien et al., 2007; Samadi and Yaghoob-Najadi, 2009; Kim, 2010). According to Kim (2010), previous research (e.g., Mangold et al., 1987) indicates that consumers are more likely to rely on personal or non-personal risk-reduction strategies depending on product type. Personal products refer to products that have more personal attributes such as clothes, accessories, and furniture, while non-personal products include CDs, and books. Personal strategies refer to risk reduction strategies that use personal information sources such as family and friends, while non-personal strategies include media sources, such as, TV and newspapers (Mangold et al., 1987). In addition, Nelson (1970, cited by Soopramanien et al., 2007) classifies products into two categories, either search (e.g., CD or a book) or experience products (e.g., clothes). Product and price information may be enough to reduce the risks associated with purchasing "search products". In the case of experience products, consumers may also need to have some 'experience' with the product more than just need information.

Kotler (1984) indicates that consumers prefer personal risk-reduction strategies when they are buying personal products. However, Kim's (2010) research on associated risk-reduction strategies on the Internet shopping environment show us a reversed answer, by indicating that consumers who use the Internet prefer non-personal simplifying risk-reduction strategies (i.e.

well-known brand, money-back guarantee, quality of warranty, price information, and consumer reports) rather than personal clarifying risk-reduction strategies (i.e. shopping around, brand loyalty, visit/call local retailer, store image, and store recommendation) across product types.

In addition, as indicated by Cases (2002), the previous studies by Bauer, Cox (1967a), Locander and Hermann (1979), Guseman (1981), and Toh and Heeren (1982) show that an elevated risk level leads to a greater influence of personal risk reduction strategies such as word of mouth, viewing the product, or consumer experience. The studies in the home shopping context (Hawes and Lumpkin, 1986; Akaah and Korgaonkar, 1988; Tan, 1999) confirm this finding.

Given the fact that we found that consumers' perceived risk varies with the product categories in the both online and offline shopping context, it is necessary to focus analysis of perceived risk and risk reduction strategies on one product or one product category.

As mentioned previously, according to CNNIC, clothing e-shoppers made up the largest online shopper group, accounting for 70.1% of total online shoppers, followed by the electronic products consumer group representing 31.6%. By taking into account the largest online shopper group, i.e. clothing shoppers, we hope that this research results in a better understanding of Chinese online shoppers. This perspective is supported by the study on French online consumers conducted by Cases (2001) wherein she indicates that "the clothing industry, which occupies an important place in home shopping…is very often used in studies on risk perception (Derbaix, 1983; Hawes and Lumpkin, 1986) in addition to being characterized by familiarity and frequency of purchase" (p. 391). Thus, our research focuses on clothing category.

2.4.3 Perceived Risk across Purchase Situation

Situation-specific studies suggest that choice situations should be the central issue in risk taking (Taylor, 1974), as cited by Soares (2004). The majority of research on perceived risk is focused on traditional marketplace and purchasing situations. However, shopping in virtual environment is much different than shopping in stores (Cunningham et al., 2004).

Internet shopping technologies with self-service attribute offer a range of the benefits from the online transaction, such as round-the-clock convenience, saving time and money, vast product selections and ease of acquiring shopping information (Cunningham et al., 2004; Kim et al., 2008). These perceived benefits provide potentially strong incentives to purchase the product or service on the Internet (Kim et al., 2008).

On the other hand, there are disadvantages to Internet shopping such as risk. Use of Internet technology for shopping is affected by more additional risks than in conventional marketplaces (Lumpkin and Dunn, 1990). Noort et al. (2007) and Kim et al. (2008) stated that in the e-commerce context, individuals perceive an online shopping environment as more risky compared to conventional. This is because the lack of physical interaction between buyer and the product, which induces an element of uncertainty in the mind of consumer about expected performance of the product (Shivraj and Vikas, 2004). The online shopping mode eliminates many important determinants that may be used by consumers to analyze whether a website retailer can be trusted, for instance, body language (Pavlou and Gefen, 2004).

In the case of a brick-and-mortar store, consumers can walk into the store and usually touch, feel, or even try the product before making a purchase decision, whereas consumers are not able to observe the merchant and touch the merchandise in the case of an online store (Kim et al., 2008). In addition, to complete an online transaction consumer should provide a great deal of personal information, such as address, phone number, shopping patterns and credit card information (Kim et al. 2008).

Under these circumstances, perceived risk by consumers could be a prominent factor in influencing shopping behavior in online marketplaces. Fosythe and Shi (2003), Liebermann and Stashevsky (2002), and Vijayasarathy and Jones (2000) found perceived risk to be a significant factor affecting Internet consumer behavior. Researchers (Gefen et al., 2003; Shivraj and Vikas, 2004; Kim et al., 2008) stated that perceptions of risk are likely to discourage consumers from forming an intention to purchase online. Liebermann and Stashevsky (2002), Fosythe and Shi (2003), and Samadi and Yaghoob-nejadi (2009) provide evidence to support a relationship between perceived risk and frequency of use.

2.4.4 Perceived Risk Dimensions in Internet Shopping Context

Cunningham (1967) defined the concept of perceived risk in terms of two basic components, uncertainty and consequences, and the consequences are subdivided into two dimensions, performance and psychosocial consequences. Since then, other investigators (e.g., Roselius, 1971) have identified other types of consequences (physical, time and money loss). Jacoby and Kaplan (1972) indicated five types of consequences (i.e., physical, psychological, social, financial, and performance) by cross-validating these dimensions. Performance risk tended to explain more variance than did any other type of consequence. Their results were supported and completed by Kaplan et al. (1974) by validating the existence of financial, performance, psychological, physical, social, and time consequences.

Similarly, Oglethorpe and Monroe (1994) indicated that the concept of perceived risk has been related to several different types of outcomes, including functional or performance, social, psychological, health and safety, and financial. It is easy to imagine each of these different types of losses in a consumer context: new product adoption involves uncertainty as to product performance; clothing is highly visible and involves social risk; cognitive dissonance that may be associated with the purchase of a new home can carry psychological risk; safety of caffeine remains unresolved; and the purchase of durable goods often carries considerable financial risk.

However, the majority of past research on perceived risk is focused on traditional marketplace and purchasing situations. Several additional dimensions relevant in this given shopping context has been proposed based on e-commerce literature: such as, privacy risk, security risk, and source risk (e.g., Jarvenpaa and Todd, 1996–1997; McCorkle, 1990; Cases, 2001). The dimensions of perceived risk and their concept both in traditional shopping place and Internet shopping place found in the literature are presented in Table 2.2.

The literature presented in Table 2.2 show that the results of previous studies on the importance of types of perceived risk towards online shopping and offline shopping are not recently generalized and consistent. For example, in the traditional context, the researchers (Cunningham, 1967; Roselius, 1971; Jacoby and Kaplan, 1972) point out that financial, physical, social risk may drive consumers' overall perceptions of risk.

In the Internet context, Cases (2001), Featherman and Pavlou (2003), Scott (2004), and Comegys et al. (2009) found that security and privacy risk were very important. They found them to be the weightiest type of risk regarding online purchasing. Thus, the importance of security and privacy risk can be generalized in regard to online purchasing (Ueltschy et al., 2004), whereas the other types of risks are not consistent in extant literature like these two types of risk.

For example, Sweeney et al. (1999) noted that online shopping may increase performance risk and financial risk due to the remoteness of the transaction, which may result in less knowledge about the quality of the product and its long-term performance. Crespo et al. (2009) reported that the economic and performance facets have a greater influence on e-commerce adoption, while social and time dimensions are the less relevant. According to Cases (2002), social risk was the least concern among e-shoppers. Privacy, source, performance, and payment risks were considered as the most crucial forms of risk in electronic commerce.

Additionally, most of the studies cited in Table 2.2 are conducted on multi-product category (CD, books, foods, furniture, etc.). Only the study of Cases (2001) was focused on one product category-jacket. As mentioned in the previous section, in our study we selected clothing product, which is more general than jacket, but they share some commons in terms

of perceived risk. It is should noted that physical risk dimension related to safety or health when using a clothing product was not identified in the study of Case (2001). She thought that it is not necessary to consider physical risk if the subjects were placed in a clothing purchase situation, a category of products not harmful to one's health or safety.

Table 2.2. Perceived Risk Dimensions and Their Concepts Proposed in Marketing and Information System Literature

Dimension	Definition	References	
		Traditional context	**Internet context**
Financial risk	Potential loss of the current cost (initial purchase price) as well as additional charges in the future (e.g., the possibility that the product may need to be repaired, delivery risk).	Cunningham (1967), Roselius (1971), Jacoby and Kaplan (1972), Peter and Ryan (1976), Ingene and Hughes (1985), Stone and Gronhaug (1993)	McCorkle (1990), Jarvenpaa and Todd (1996–1997), Cases (2001), Featherman and Pavlou (2003), Crespo et al. (2009), Comegys et al. (2009), Ko et al. (2010)
Performance risk	Potential loss incurred when a product/service does not perform as expected.	Cunningham (1967), Jacoby and Kaplan (1972), Peter and Ryan (1976), Ingene and Hughes (1985), Stone and Gronhaug (1993),	Jarvenpaa and Todd (1996–1997) , McCorkle (1990), Cases (2001), Featherman and Pavlou (2003), Crespo et al. (2009), Comegys et al. (2009), Ko et al. 2010
Psychological risk	Potential loss of self-esteem (ego loss) from the frustration of not achieving a buying goal.	Cunningham (1967), Roselius (1971), Jacoby and Kaplan (1972), Peter and Ryan (1976), Stone and Gronhaug (1993)	Featherman and Pavlou (2003), Comegys et al. (2009), Ko et al. (2010)
Physical risk	Related to safety or health	Jacoby and Kaplan (1972), Peter and Ryan (1976), Ingene and Hughes (1985), Stone and Gronhaug (1993)	Comegys et al. (2009), Ko et al. (2010)
Social risk	Potential loss of status in one's social group as a result of purchasing a product or service, (e.g., be laughed by others, cannot entry a social group as expected).	Cunningham (1967), Jacoby and Kaplan (1972), Peter and Ryan (1976), Ingene and Hughes (1985), Stone and Gronhaug (1993)	Jarvenpaa and Todd (1996–1997), McCorkle (1990), Comegys et al. (2009), Ko et al. (2010)

Source: Adapted from Cases (2001), Featherman and Pavlou (2003), Crespo et al. (2009) and Ko et al. (2010)

Table 2.2. Perceived Risk Dimensions and Their Concepts Proposed in Marketing and Information System Literature (continued)

Dimension	Definition	References	
		Traditional context	**Internet context**
Time risk	Possibility to waste time researching information and purchasing when finally making a bad purchasing decision.	Cunningham (1967), Roselius (1971), Peter and Ryan (1976), Ingene and Hughes (1985), Stone and Gronhaug (1993)	McCorkle (1990), Cases (2001), Featherman and Pavlou (2003), Comegys et al. (2009), Ko et al. (2010)
Privacy risk	Personal information will be collected without their consent when giving one's credit card number online or use of cookies and web bugs.		Jarvenpaa and Todd (1996–1997), Cases (2001), Featherman and Pavlou (2003), Scott (2004), Comegys et al. (2009)
Payment risk	Financial consequences engendered by giving one's credit card number on the Internet.		McCorkle (1990), Jarvenpaa and Todd (1996–1997), Cases (2001), Scott (2004), Comegys et al. (2009)
Source risk	Fear of the level of credibility and reliability of the Website.		McCorkle (1990), Cases (2001), Comegys et al. (2009)
Delivery risk	Fear of not receiving the product on time, long delivery time, or product being damaged during the delivery.		Cases (2001)

Source: Adapted from Cases (2001), Featherman and Pavlou (2003), Crespo et al. (2009) and Ko et al. (2010)

2.4.5 Perceived Risk Reliever Strategies in Internet Shopping Context

As indicated by Roselius (1971), buyers often concern about the potential loss or failure when they purchase a product. In this case, the consumer will use a variety of methods such as, brand loyalty, asking family or friends, searching information, or comparing price, to reduce the risk and increase purchasing success. He defined a risk reliever as a strategy or method, executed by the buyer, which is possible to associate with one of the two dimensions of the perceived risk (uncertainty and adverse consequence) (Roselius, 1971). In other words, risk-reduction strategies are adopted by consumers as they think about purchase to obtain a higher probability of purchase success/to reduce a loss in case of purchase failure or used by marketers to intervene the consumer decision process to increase the probability of purchase.

A range of past research shows that the buyer may use a set of different multiple risk-reduction strategies ranging from most preferred to least preferred for differing purchasing environment or purchasing mode (Hawes and Lumpkin, 1986; Akaah and Korgaonkar, 1988; Tan, 1999). However, it is important to note that the results of these previous studies on risk reduction methods are not convergent. As indicated by Cases (2002), Hawes and Lumpkin (1986) for the first time included the mode of purchase in a study on the use of risk-relievers. They proposed a ranking that is noticeably different from the one proposed by Cox (1967a) or Locander and Hermann (1979). Although personal experience is still at the top of the list, name brand and word of mouth did not rank better than sixth. Another study from the same perspective by Akaah and Korgaonkar (1988) highlights the importance attached to a money-back guarantee, the manufacturer's reputation, and the price of the item. These relievers turned out to be more useful in reducing risk than the recommendation of a friend or familiarity with the brand.

As for risk reduction strategies for Internet shopping mode, marketers must know which risk-reduction strategy is important for consumers on the Internet to reduce their concerns more specifically. For example, providing transaction security guarantee based on such perceived risk as payment risk might be adopted by e-marketers to decrease consumers' perceived risk and to increase their purchasing possibilities on the Internet. Past studies suggested a set of

categories to study risk reduction strategies in the Internet environment.

As citing the earlier study by Tan (1999), Cases (2001) indicated that on Internet purchasing did not confirm the results obtained by the previous studies. The ranking was even reversed, since the brand, testimonies and reference groups on the Internet received high utility scores, while a money-back guarantee received a low score. The results of Samadi and Yaghoob-Najadi (2009) supported the conclusion made by Tan (1999). They indicated that overall, "Money-back guarantee", "past experience", and looking for "information from friends or family" were the most referred to risk-reduction strategies for Internet risks. "Consumer reports", "store recommendation", "shopping around" and "store image" were the least referred to strategies for Internet shopping.

The results of the study conducted by Kim (2010) confirmed the previous findings of Roselius (1971) and Tan (1999) in different purchasing mode setting, by showing that consumers rely on a famous brand or manufacturers' name, strong money-back guarantee, and their previous purchasing experience to reduce their perceived purchasing risk in the Internet. In addition, the overall ranking of risk-reduction strategies in this study (although it shifted negative) was very similar to that of past research for store purchasing (Roselius, 1971).

Moreover, the different types of products seem to evoke different reduction strategies to lower risk (Nelson, 1970; Mangold et al., 1987; Soopramanien et al., 2007; Samadi and Yaghoob-Najadi, 2009; Kim, 2010). According to Kim (2010), previous research (Mangold et al., 1987) indicated that the consumers more likely rely on the personal or non-personal risk-reduction strategies based on the product type. Personal products refer to products that have more personal importance such as clothes, accessories, and furniture, while non-personal products include CDs, and books. Personal strategies refer to risk reduction strategies that use personal information sources such as family, friends, and acquaintances, while non-personal strategies include radio, TV, newspapers, and commercial sources, such as professional associations (Mangold et al., 1987). In addition, according to Soopramanien et al. (2007), Nelson (1970) classified products into two categories, either search (e.g. CD or a book) or experience products (e.g. clothes). Product and/price information search by the consumer may be enough to reduce the risks associated with purchasing "search products". In the case

of experience products, consumers may need more than the information search and may also need to have some form of ‘experience’ with the product prior to purchasing.

Kotler (1984) indicated that consumers prefer personal risk-reduction strategies when they are buying personal products. However, the research of Kim (2010) associated risk-reduction strategies in the Internet shopping environment show us a reversed answer, by indicating that consumers in the Internet prefer non-personal simplifying risk-reduction strategies (i.e. well-known brand, money-back guarantee, quality of warranty, price information, and consumer report) to personal clarifying risk-reduction strategies (i.e. shopping around, brand loyalty, visit/call local retailer, store image, and store recommendation) across product types.

In addition, as indicated by Cases (2002), the previous studies of Bauer, Cox (1967a), Locander and Hermann (1979), Guseman (1981), and Toh and Heeren (1982) show that an elevated risk level leads to a greater influence of personal risk reduction strategies such as word of mouth or consumer experience. The studies in the home shopping context (Hawes and Lumpkin, 1986; Akaah and Korgaonkar, 1988; Tan, 1999) qualify this finding.

A convergent conclusion is obviously difficult to obtain from the previous research discussed above. Therefore, one of goals of this study is to investigate the Chinese consumers’ risk-reduction strategy preference about purchasing of personal product type (clothes) from the Internet. Then, fourteen risk-reduction strategies have been selected based on their personal and non-personal representativeness and applicability to Internet purchasing, that is, non-personal risk reduction strategies, including information about product, payment security, money-back guarantee, past experience using this product-brand loyalty, buying a well-known brand, price information, possibility of seeing the product in a store, existence of a local retailer (package delivery point, store), website loyalty, past online shopping experience, possibility of communicating with a salesperson (by phone or mail) and personal risk reduction strategies word of mouth- information from family and friends and comments on the Internet.

2.4.6 The Measure of Perceived Risk

Research in this area has been hampered by the lack of a suitable measurement of perceived risk itself. The measures proposed to date have been arbitrary for the most part, and have often differed from one study to another (Bettman, 1972).

As mentioned previously, the two-dimensional (importance and probability of loss) and multi-facet (performance, social, physical, financial, time and psychological losses) nature of perceived risk has been widely accepted. However, cited by Soares (2004), Dowling (1986, p. 194) argued that "perceived risk is a somewhat 'fuzzy' construct" since it has been conceptualized and operationalized at different abstraction levels. Low-level measurement refers to a single product's perceived risk; medium-level measurement focuses on or across product-categories; and high-level abstraction measures resemble a personality trait. While low-level measurement is a best powerful predictor of consumer behavior, it suffers from low generalisability. This is similar to the Taylor's (1974) suggestion that research should be purchase-specific (Soares, 2004).

This section proposes a measurement methodology for perceived risk and reports some initial research using the measures. Three principal measurement methods used commonly in the research of perceived risk are presented. That is, two-component model, scale and experimental method. The advantages and shortages of each method are discussed in the following paragraphs.

2.4.6.1 Two- Component Model Measurement

According to Mitchell (1999), Cunningham (1967) was one of the first to measure each dimension of the two-component perceived risk model on three-point scales. Each dimension was measured by three-point scales, which combined multiplicatively to give a one-to-nine

risk scale. This two-component model has been one of the most popular models used in measurement of risk perception because it is simple to use and is easy for respondents to understand (Mitchell, 1999). In addition, using this model allows researchers to take multiple measures of risk dimensions (Mitchell, 1999).

To accommodate both the components and facets of perceived risk, the following model was formulated:

PRn = ICn × PCn

Where

PR = perceived risk
IC = importance of negative consequences from the purchase of clothing product online
PC = probability of negative consequences from the purchase of clothing product online
n = risk facets of perceived risk, e.g. time, psychosocial, financial etc.
For each perceived risk dimension being tested, respondents were asked two questions using a 6-point scale adopted from Hoover et al. (1978). They are:

1. This kind of perceived risk dimension is (not important at all, not important, not very important, a little important, important, very important) in purchasing a clothing product on the Internet.

2. It is (completely impossible, impossible, not very possible, a little possible, possible, very possible) that this kind of perceived risk dimension will happen when you purchase this clothing product online

The first question provides a measure of the consequences of purchasing a clothing product on the Internet, and the second provides a measure of the possibility that the consequences will occur. The combined measure of perceived risk is derived by multiplying the responses to the two scales. The maximum perceived risk score of 36 occurs when a respondent indicates great perceived danger in buying a clothing product, and is never certain the article from online purchase will perform well; the minimum score of 1 is obtained when the

respondent perceives no unfavorable consequence, and is always certain of online purchase success (Hoover et al., 1978).

However, we should note that Cunningham's model is questionable in some point (Mitchell, 1999). Just as Cunningham himself admits, "an arbitrary method of constructing the perceived risk index was used" (Cunningham, 1967, p. 84). Bettman (1972) suggested that an interval-scaled measure would be more desirable, as it would allow a wider range of analytical tools to be employed in examining research results. Two different rating scale measures of risk that are assumed to be interval were proposed by Spence et al. (1970) and by Perry and Hamm (1969).

In addition, should the elements of perceived risk be multiplied or added is a major debate and preoccupation with researchers (Mitchell, 1999). Peter and Ryan (1976) commented that the two components are usually combined multiplicatively to give an overall indication of perceived risk. The logic of this multiplicative model is likely to come from probability theory, where probabilities are multiplied by monetary value to determine the expected values of gambles (Mitchell, 1999). Peter and Ryan (1976) also concluded that the importance of losses may be more useful as a segmentation variable than as a component of a multiplicative perceived risk model. According to Mitchell (1999), most of the work in the risk area has proposed some sort of multiplicative formation (e.g. Sieber and Lanzetta, 1964; Cunningham, 1967).

In contrast, as indicated by Mitchell (1999), the argument of multiplicative versus additive has continued to engage researchers over the three decades. The researchers (e.g., Lanzetta and Driscoll, 1968; Horton, 1976; Joag et al., 1990) provided evidence that an additive model fits slightly better. By working on a linear model, they suggested that a positive correlation between importance and uncertainty of consequences may lead to an additive model being better (Mitchell, 1999).

Despite these questionable points, this two-component model is considered as a good example of the simpler models and has been one of the most popular models used in the measurement of risk perceptions. Using a two-component model gives researchers the ability to take multiple measures of risk types, such as, time risk and financial risk (Mitchell, 1999).

The two-component model of probability and consequences has been used by many researchers and has a long-standing tradition. For example, in the study of Gelder et al. (2008), they tried to test the impact of perceived risk and negative effect on risky choice. In their three sub-studies they used two-dimension model to test perceived risk scores. In the measurement of perceived risk, bipolar 9-point scales were used. Two items measured perceived risk. One item pertained to risk probability: 'How big are the chances of X happening (e.g. having an accident)?' (very small to very big). The other item concerned risk magnitude: 'How serious are the possible consequences of X (e.g. getting into the car with your friend driving)?' (not serious at all–very serious). The perceived risk score was obtained by multiplying these two items in correspondence with the formal definition of risk.

Similarly, in the study of Samadi and Yaghoob-Nejadi (2009), perceived risk has been hypothesized to involve a combination of six underlying dimensions- social, psychological, monetary, functional, physical, and convenient. In this study, the perceived risk scores for all six dimensions are combined to measure overall perceived risk as in:

$$\textbf{Overall Perceived Risk} = \sum_{i=1}^{6} \textbf{PL* ILi}$$

where

PL = Probability of Loss;

IL = Importance of Loss;

i = Type of loss.

The probability and importance of each risk is operationalized as a seven-point scale in an improbable-probable and unimportant-important statement context (Samadi and Yaghoob-Nejadi, 2009). The statements associated with each of the six dimensions are the same in form as the following social risk operational statement: Extremely = 1; Slightly = 5; Moderately = 2; Neither = 4; Moderately = 6; Slightly = 3; Extremely = 7.

2.4.6.2 Multi-item Scale Measurement

Except two-dimension model measurement method, the perceived risk can be measured directly by multi-items. Compared to two-dimension model, this multi-item method seems easier and more simple to use has been appeared in many perceived risk studies.

As noted by Mitchell (1999), Bettman (1973) suggested that in the future research multiple methods of measuring risk and the other constructs of the model should be included to further examine issues of reliability and validity. Peter (1979, p. 15) noted that "perhaps a multi-item scale is needed for each type" since there are multiple dimensions of perceived risk, such as financial, social, psychological dimensions.

According to Mitchell (1999), the majority of the literature reports unidimensional measures of risk, that is, a single statement which either measures overall risk, or the probability component or the consequences component, for instance, how important is overall risk when purchasing product X? One solution is to measure the risks indirectly through statements generated from in-depth interviews. "Instead of asking "what are the social risks involved in the purchase?", several statements could be used to replace the overall concept of social risk, e.g. your superiors will be displeased, or, your relationship with colleagues may be adversely affected" (Mitchell, 1999, p. 182).

Mitchell (1999) provided several reasons for using multi-statements. First, these statements are more meaningful to respondents and therefore do not require briefing. Second, each can be measured individually by specifying the components of each risk separately. Third, it is possible to test reliability and validity with multiple statements measuring the same construct. Forth, these multi-statements also help overcome the briefing problem associated with trying to explain what is meant by risk to consumers.

Therefore, in the need of a better understanding of the concept of perceived risk and a better measurement, the multi-item method has been widely developed by the researchers (Ko et al., 2004; Keh and Sun, 2008; Kim, 2009). For example, Forsythe et al. (2006) developed a scale

to measure the perceived benefits and risks of online shopping. Based on an exploratory qualitative inquiry and quantitative assessment, three-factor scales of perceived risk of online shopping were developed (c.f. table 2.3). Results from two national samples support the proposed measures of perceived benefits and risks associated with online shopping in terms of construct, convergent, discriminate, and predictive validity.

Table 2.3. Scale Items with Factor Loadings and Cronbach's Alpha

Perceived Risks of Shopping Online	Factor Loadings	Alpha
Financial Risk		0.892
Can't trust the online company	0.879	
May not get the product	0.872	
May purchase something by accident	0.780	
My personal information may not be kept	0.732	
I may not get what I want	0.697	
My credit card number may not be secure	0.681	
Might be overcharged	0.677	
Product Risk		0.844
Can't examine the actual product	0.857	
Size may be a problem with clothes	0.847	
Can't try on clothing online	0.776	
Inability to touch and feel the item	0.700	
Must pay for shipping and handling	0.676	
Must wait for merchandise to be delivered	0.644	
Time/Convenience Risk		0.738
Too complicated to place order	0.838	
Difficult to find appropriate websites	0.773	
Pictures take too long to come up	0.557	

Source: Forsythe et al. (2006)

2.4.6.3 The Experimental Methods

Except for two-component measurement model and multi-item measurement mentioned previously, there still exists another measurement, namely experimental methods. This type of method is used particularly in cross-cultural research. This approach is grounded on the

post-positivistic empirical tradition of psychology using experimental, quasi-experimental tests and experiential surveys as data collection methods (Russon, 1995; Van de Vijver and Leung, 1997, cited by Refaat El Said, 2005). In cross-cultural approach, experiments are implemented in parallel within different cultures, while same setting, context and tasks scenarios are maintained.

For example, in the study of Weber and Hsee (1998), respondents from the China and U.S., Germany, and Poland were found to differ in risk preference, as measured by buying prices for risky financial options. These apparent differences in risk preference were associated primarily with cultural differences in the perception of the risk of the financial options rather than with cultural differences in attitude towards perceived risk.

Respondents were told to assume that they were investing their own money and that they currently had $20,000 available to make investments. They were instructed to examine each investment option separately, to consider the possible losses and gains, and to answer the following question: “What is the maximum amount you would be willing to pay to get a chance at this investment option? (If you wouldn't buy it at any price, say $0.)” They were then asked: "How risky do you think this investment option is?" Perceived riskiness (R) of the option was expressed on a numerical rating scale that ranged from 0 (not at all risky) to 100 (extremely risky). Respondents answered questions about their perceptions and reactions to risky financial investment options. Each option had three potential outcomes, with at least one possible gain and one possible loss of money.

Similarly, Li and Fang (2004) set four experiments to challenge the previous collective-culture oriented researches results that respondents in Asian cultures (e.g., Chinese) are more risk-seeking and more overconfident than respondents in other cultures (e.g., in United States) and that the reciprocal predictions are in total opposition.

The authors proposed three decision problems, which measure individual’s degree of risk-taking and overconfidence. For instance, the respondents were instructed to suppose that they are faced with 2 investment options, A and B. If the respondents choose OPTION A, they may either make $920 or lose $200, and if they choose OPTION B, they may either make

$110 or lose $10. The similar questions were asked also in the lottery settings and aircraft accident.

Although experimental methods have been used in the research on perceived risk, Wells (1993) argues that the laboratory misrepresents the real world in several important ways and argues that realistic and natural settings are vital to the future of marketing inquiry. In addition, Nielsen (1993) recommends that tasks should be small enough to be completed within the test time, and be given to the participant one at a time. Therefore, under the consideration of large quantity of samples we used multi-item measurement in our study in spite of some advantages of experimental method over two-component measurement model and multi-statement measurement.

Since multi-statement measurement are widely used by the researchers in the measure of perceived risk because of its better and complete explanation of perceived risk concept, good reliability and validity compared to two-component measurement model, we adopted multi-item measurement in our research. Another reason for considering this measurement is that in our study the other constructs (e.g., intention to repurchase, culture dimensions) are all measured by multi-statement. For the consideration of data analysis with other constructs, we chose to use multi-item measurement instead of two-component model.

2.5 Antecedents of Perceived Risk

To date, although some researchers have tried to categorize the antecedents/determinants of perceived risk in commerce (e.g., Celsi and Olson 1988; Jain and Srinivasan 1990; Dowling and Staelin, 1994; Volle, 1995; Tse 1996; Weber and Hsee, 1998; Dholakia, 2001; Conchar et al., 2004; Sjöberg et al., 2004; Ding, 2007; Keh and Sun 2008; Kailani and Kumar 2011), the findings are limited and deserve more attention.

Certain research focus on the factors influencing online shopping attitudes and behavior (e.g., Li and Zhang, 2002; Zhou et al., 2007) has been carried out. For instance, Zhou et al. (2007)

identify that perceived risk can be affected or moderated by a variety of factors, including consumer demographics, Internet experience, product characteristics, and attributes of a Web site, among others. The following paragraphs not only review the studies on perceived risk but also those on online shopping where the perceived risk are discussed.

2.5.1 The Study of Zhou et al. (2007)

There have been intensive studies of online shopping attitudes and behavior in recent years. Most of them have attempted to identify factors that influence or contribute to online shopping attitudes and behavior. Zhou et al. (2007) acknowledge that the consumers' online shopping behavior can be analyzed from either a consumer- or a technology-oriented view.

The consumer-oriented view focuses on consumers' salient beliefs about online shopping. For instance, as concluded by Zhou et al. (2007), online consumer behavior has been examined from the perspectives of consumer demographics (Chau et al., 2002; Korgaonkar et al., 2004; Li et al., 1999; O'Keefe et al., 2000; Park and Jun,2003; Park et al., 2004; Stafford et al., 2004), cognitive/psychological characteristics (Hoffman and Novak, 1996; Huang, 2003; Lynch and Beck, 2001; Novak et al., 2000; Wolfinbarger and Gilly, 2001; Xia, 2002), perceptions of risks and benefits toward online shopping (Bhatnagar and Ghose, 2004a; Bhatnagar and Ghose, 2004b; Bhatnagar et al., 2000; Featherman and Pavlou, 2003; Garbarino and Strabilevitz, 2004; Huang et al., 2004; Jarvenpaa and Todd, 1997; Jarvenpaa and Tractinsky, 1999; Jarvenpaa et al., 1999; Joines et al., 2003; Kolsaker et al., 2004; Liang and Jin-Shiang, 1998; Liao and Cheung, 2001; Park et al., 2004; Pavlou, 2003; Pires et al., 2004; Solomon, 1999), shopping motivation (Childers et al., 2001; Johnson et al., 2004; Novak et al., 2000; Wolfinbarger and Gilly, 2001), and shopping orientation (Donthu and Garcia, 1999; Korgaonkar and Wolin, 1999; Li et al., 1999; Swaminathan et al., 1999).

On the other hand, the technology-oriented view explains and predicts consumer acceptance of online shopping by examining technical specifications of an online store. These

specifications include user interface features, Web site content and design, and system usability. The two views do not contradict but rather reinforce each other (Zhou et al., 2007).

2.5.2 The Study of Li and Zhang (2002)

Similarly, Li and Zhang (2002) provide a synthesis of the influence of consumers' online shopping behavior and attitude based on the existing literature. They note that the researchers seem to take different perspectives and focus on different factors in different ways. For example, Case et al. (2001) found that internet knowledge, income, and education level are especially powerful predictors of Internet purchases. Ho and Wu (1999) discover that there are positive relationships between online shopping behavior and five categories of factors, which include online stores logistical support, product characteristics, websites technological characteristics, information characteristics, and homepage presentation. Another study carried out by Schubert and Selz (1999) reported that the quality factors of electronic commerce sites in terms of information, agreement, and settlement phases are related to e-commerce community (c.f. Li and Zhang, 2002).

By examining the 35 empirical studies, Li and Zhang (2002) identify a total of ten interrelated factors for which the empirical evidences show significant relationships. They are, "external environment, demographics, personal characteristics, vender/service/product characteristics, attitude towards online shopping, intention to shop online, online shopping decision making, online purchasing, and consumer satisfaction" (Li and Zhang, 2002, p. 509).

More precisely, according to Li and Zhang (2002), external environment "refers to those contextual factors that impact consumers' online shopping attitudes and behavior" (Li and Zhang, 2002, p. 510). It includes three dimensions: the existing legal framework that protects the consumers from any kind of loss in online transactions; the system of the third party recognition in which many third party certification bodies are working to ensure the trustworthiness of online vendors. These two factors are positively associated with consumers trust attitude to the online stores. The last factor is the numbers of competitors. Lee and

colleagues (2000) argue that the fewer the competing vendors, the greater the possibility of opportunistic behavior on the part of existing vendors so as to maximize profits.

Demographics include such variables as age, gender, level of education, income, and time online. Bellman et al. (1999, cited by Li and Zhang, 2002, p. 511) argue that "although demographics appear to play an important role in determining whether people use the Internet, once people are online, demographics do not seem to be key factors affecting purchase decisions or shopping behavior".

Other demographic factors found to impact consumers online shopping attitudes and behavior include cultural environment, need specificity, product involvement, disposition to trust, the extent to which they would like to share values and information with others, the extent to which they like being first to use new technologies, and tendency to spend money on shopping (Borchers 2001; Koufaris et al.2002; Lee et al.2000; Kimery and McCord 2002; Bellman et al 1999).

Li and Zhang (2002) mention that sixteen out of the 35 studies examine the relationship between vender/service/product characteristics and other factors. Measures employed to value vender characteristics in the empirical studies include (1) real existence of the store/physical location, (2) store reputation, (3) store size, (4) reliability, (5) number of Internet store entrances, (6) assurance-building mechanisms (e.g., seals, warranties, news clips), and (7) use of testimonials (van der Heijden et al. 2001; Liang and Lai 2000; Bhatnagar et al. 2000; Kim et al. 2001; Lowengart and Tractinskky 2001; Grazioli and Wang 2001; Pavlou 2001; Jarvenpaa et al. 2000; Lee et al. 2000).

Among product features that impact customers online shopping behavior are (1) variety of goods, (2) product quality/performance/product uncertainty, (3) product availability, (4) price, (5) social presence requirement, (6) product presence requirement, (7) dependability of product, (8) possibility of customized products, and (9) brand (Jahng et al. 2001; Liang and Huang 1998; Kim et al. 2001; Cho et al. 2001; Lowengart and Tractinskky 2001; Muthitacharoen 1999). In addition, researchers examine different aspects of service provided by the venders through the online shopping process.

Service factors related to online shopping attitudes and behavior include (1) customer communication channels/ease of vendor contact, (2) response to customer needs, (3) accessibility of sales people, (4) reliability of the purchasing process/process uncertainty, (5) timeliness of orders or services/waiting time, (6) availability of personalized services, (7) ease of return and refunds, (8) fraud, (9) delivery (speed, tracking and tracing), (10) transaction costs, (11) peripheral costs, and (12) promotion (Ho and Wu 1999; Liang and Huang 1998; Lohse and Spiller 1998; Liang and Lai, 2000; Bhatnagar et al. 2000; Kim et al. 2001; Cho et al. 2001; Li et al. 2001; Muthitacharoen 1999).

2.5.3 The Study of Volle (1995)

The paper of Volle (1995) reviewed research in the field of psychology of risk as perceived by consumers and regrouped determinants of perceived risk into three sets relating to the individual, the product and the purchase situation, as figure 2.3[8] presented.

First, the influence of psychographic variables is mixed, as indicated by the author. Individuals whose cognitive style is characterized by a strong desire for clarification (Cox, 1967b), and an important differentiation capacity or a high tolerance for ambiguity (Muller, 1985) perceive lower risk than others. It was also shown that the generalized self-confidence, a general stable disposition, is not correlated with perceived risk (Cunningham, 1967a), however, specific self-confidence, that is the trust for performing a particular task, is positively correlated with perceived risk (Schaninger, 1976) or with searching for information (Locander and Hermann, 1979). Anxiety was positively correlated with the level of perceived risk (Schaninger, 1976) or searching for information (Locander and Hermann, 1979). Schaninger (1976) shows that the measures of perceived risk are positively correlated with risk-taking as a personality trait, concept close to the attitude to risk in utility theory. Positive Correlation between sustainable involvement and perceived risks is identified (Venkatraman, 1989).

[8] The translation is proposed by auther.

The influence of socio-demographic variables appears for a high level of social risk (Prasad, 1975). Overall, it is probably low (Cunningham, 1967b), although no recent study confirms these results. In addition, the influence of an environmental variable, such as culture, on the perceived risk has been shown (Hoover et al. 1978; Verhage et al., 1990). However, the personal variables are presented in the literature by simple description. The author suggested that an analytical framework is needed to allow going beyond simple description.

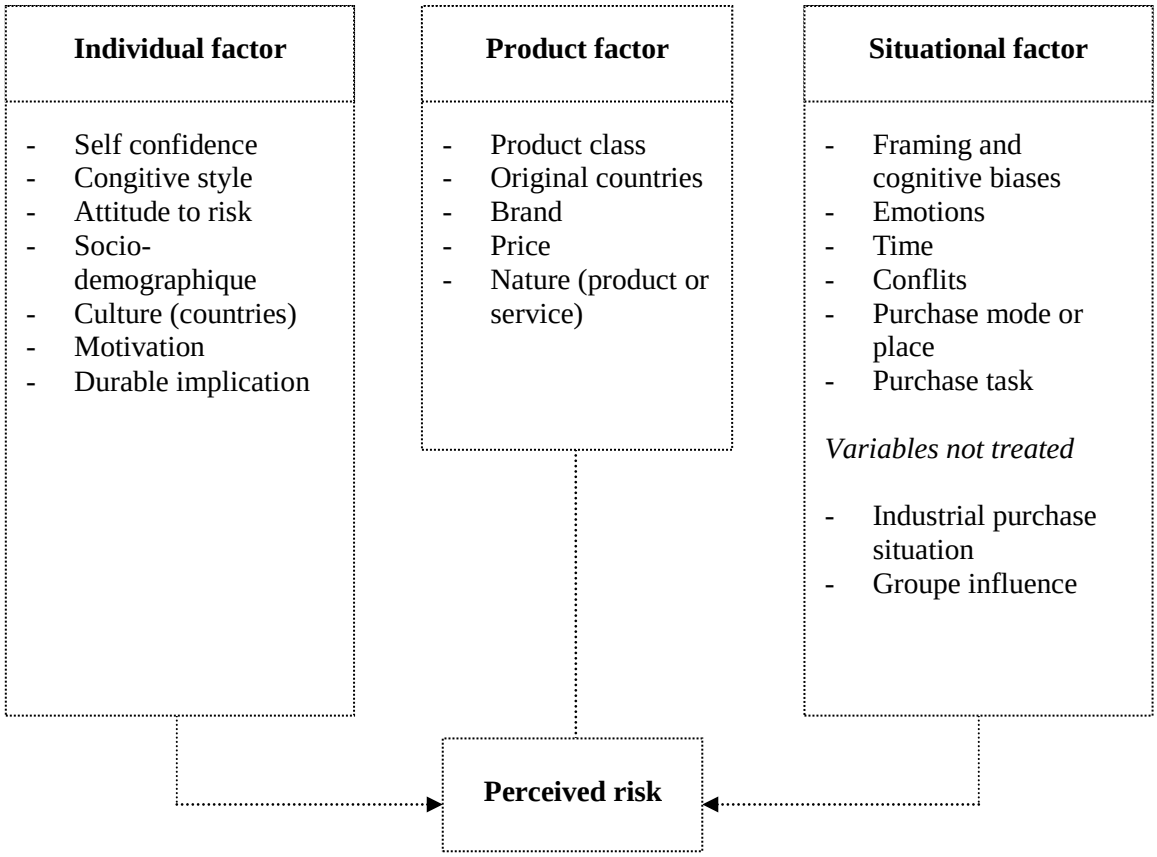
Second, early studies show that risk perception depends on product type (Cunningham, 1976b; Perry and Hamm, 1969, Jacoby and Kaplan, 1972; Derbaix, 1983). The country of origin of the product also has an impact on risk. Research shows the importance of the brand in the perceived risk (Dunn et al, 1986): performance risk is higher for the generic brands, while the financial risk is higher for national brands. Other authors (Roselius, 1971) show that choosing a trusted brand is an effective way to reduce risk. Moreover, the price is a variable that can play in two directions, that is a high price is associated with a high financial risk but the price is also a quality indicator may reduce the risk (Zeithaml, 1988; Gijsbrechts, 1993; Grawal et al., 1994). This result is contrary according to Roselius (1971), choose a product with high price is not an effective strategy for risk reduction. Other factors related to the product should not be ignored. Offering a money back guarantee in case of dissatisfaction (Derbaix, 1983), and an essay or a free sample (Akaah and Korgaonkar, 1988) reduce the perceived risk. Providing post-sale guarantee is also a factor that significantly reduces the risk (Vann, 1987).

Third, concerning situational variables which may influence perceived risk, Volle mentions that framing influences perceived risk (Tversky and Kahneman, 1982). Thus, individuals fear risk when the alternative is presented as a gain but accept or even seek risk, when the alternative is presented as a loss (Kahneman and Tversky, 1979). In addition, the mood of the individual at the time of choice has an impact on risk perception. Time is also a factor that weighs on risk perception. Certain modes of purchase are perceived as riskier than others, particularly the electronic shopping at home, for example. And other situational variables may have a significant effect: the definition of the task, the purpose of a purchase- gift, for example.

Volle (1995) make his contribute to the concept of perceived risk by providing a synthesis of the determinants of perceived risk, but he stopped at the description of these variables

without going farther to provide an empirical analysis to examine the three groups of determinants.

Figure 2.3. The antecedents of perceived risk



Source: Volle (1995)

2.5.4 The Study of Tiangsoongnern (2007)

Concerning information a buyer requires when considering a purchase, Tiangsoongnern (2007) indicates that information is a predominant factor influencing the level of a buyer's perceived risk. Various studies conclude that this information is associated with reducing

perceived risk involved in the purchase (Ha, 2002; Tan, 1999). The buyer's level of perceived risk can be influenced by the availability and creditability of the information required to make a decision. For example, a buyer's concerns about privacy have been found to increase their perceived risk when purchasing online (Kim and Montalto, 2002). Another important antecedent of perceived risk is the buyer's concern about information security (Heijden et al., 2003). These concerns not only increase the level of perceived risk but also reduce the likelihood of purchasing online (Chellappa and Pavlou, 2002).

Based on the review of previous research on antecedents of perceived risk, we found that although a handful of studies were conducted to explore the determinants of perceived risk, the further studies are still required, since these studies are lack of empirical support or overall determinants review. The concept of variables and their influences on perceived risk examined by previous studies are presented in detail in the following sections.

2.6 Consequences of Perceived Risk

Having discussed the determinants of perceived risk and cultural influence on perceived risk determinants, we now turn to understanding perceived risk consequences. Previous research found that perceived risk has strong effects on pre-purchase stage, that is, adoption/intention to purchase (e.g., Park et al., 2004) and post-purchase stage, for example, perceived value (e.g., Keh and Sun, 2008); and intention to repurchase (e.g., Featherman and Pavlou, 2003; Crespo et al., 2009).

The following sections discussed in detail the relationship between perceived risk and intention to purchase/repurchase mentioned in the previous research.

2.6.1 Perceived Risk and Intention to Purchase

The role of perceived risk in influencing the purchase intention is gaining importance and has been analyzed in a number of prior studies (e.g., Gefen et al., 2003). The effect of perceived risk on intention to purchase is one of main concerns for information system and marketing researchers.

By reviewing the relative research published in the following eight journals, such as, MIS Quarterly, ISR, Journal of MIS, Information and Management, Chang et al. (2005) found that the studies proved quite controversial. For generally perceived risk, six out of the nine studies found that it has a significantly negative impact on intention and actual online purchasing behavior. However, the other three found no such relationship. For the perception of specific risk, one study concluded that risks associated with not getting what was expected and credit card problems could negatively affect online shopping intention.

However, another study found that some risk dimensions, such as, privacy infringement, system security, and fraudulent behavior of the merchants did not have influence on intention. Some authors attributed these inconsistent results to a narrow definition of the risk. The authors thus concluded that although the impact of risk perception on intention or actual usage is mixed, six studies found that risk perception had significantly negative influence on the attitude towards online shopping.

Furthermore, the direct or indirect relationship between perceived risk and purchase intention has been debated. Many studies indicated that perceived risk has no direct effect on purchase intention, but perceived risk can influence purchase intention through the mediators, such as perceived ease of use, or attitude variable. For example, Shivraj and Vikas (2004) concluded that the observed relationship between perceived risk and purchase intention is not significant. Their analysis indicated a mediator relationship between perceived risk, perceived ease of use and purchase intention, where perceived ease of use mediates the relationship between perceived risk and perceived intention. The mediator effect can be explained by the fact that perceived usefulness accounts for most of the variation in purchase intention and

emerges as the dominant predictor of purchase intention in the TAM model while studying online purchase behavior. Gefen et al. (2000) also confirm differences in relationship between perceived ease of use and behavioral intention based on the nature of task for which web is used.

In addition, Heijden et al. (2000) modeled the role of perceived risk as an indirect influence on consumer online purchase intention that feeds through consumer attitude, affecting willingness to purchase. This indirect influence of perceived risk on purchase intention was consistent with the findings of Pire et al. 2004. Sweeney et al. (2009) supported the findings by indicating that perceived value for money is a true mediator of the various antecedents (quality, price and risk factors) and willingness-to-buy, that is, willingness-to-buy is affected indirectly by risk through the mediator perceived value.

However, their findings concerning the indirect influence of perceived risk on purchase intention seem at variance with Pavlou's (2001) finding that perceived risk is significantly negatively related to purchase intention. The assertion on direct effect of perceived risk on purchase intention is largely supported by previous research (e.g., Kim et al., 2009; Zakariya, and Syed Azizi, 2009). Likewise Tan (1999) and Donthu (1999) find that in online purchasing there is a negative relationship between risk-averse consumers and Internet purchasing tendency (Ueltschy et al., 2004).

As noted by Crespo et al. (2009), several authors have observed that the perceived risk in e-commerce has a negative effect on shopping behavior on the Internet (Park et al. 2004), intention to adopt e-commerce (e.g., Featherman and Pavlou, 2003), and perceived usefulness of the system (e.g., Shih, 2004). These results confirm Murray and Schlacter's (1990) proposal that consumers will seek to reduce risk in different ways when making decisions, when the perceived risk is reduced, consumers will have higher intention to purchase product/service. In addition, Kim et al. (2009) stated that consumer's willingness to purchase (intention to purchase) through the site is negatively related to a consumer's perceived risk. Their result is consistent with other online market research on perceived risk and Internet shopping, such as Samadi and Yaghoob-nejadi (2009).

Another study carried out by Park et al. (2004) reported that regarding the impacts of PRT (perceived risk in the context of transaction) and PRP (perceived risk with product/service), both constructs in the U.S. dataset have strong direct effects on the adoption of e-commerce while the result form the Korean dataset shows no significant effects of both constructs on the adoption. The result in the U.S. dataset is consistent with Rose et al.'s study (1999), which describes online transactional risk (i.e., security risk and privacy risk) as the most important impediment to B to C e-commerce.

2.6.2 Perceived Risk and Intention to Repurchase

As discussed in the section 2.3.3, "long-term viability of an IS and its eventual success depend on its continued use rather than first-time use" **(**Bhattacherjee, 2001, p. 351)**.** Whereas the first transaction is an important step in the B to C business relationship, the long-term relationship depends not only on the factors that fostered the first purchase, but also on the consequences of that initial purchase decision (Oliver, 1993). Accordingly, maintaining consumer's intention to repurchase is a growing concern among companies (Parasuraman and Grewal, 2000).

Given that prior research hasn't paid much attention to the importance of continuance behavior and the distinction between acceptance and continuance process (e.g., Davis, 1989; Featherman and Pavlou, 2003; Crespo et al., 2009) by viewing that 'continuance as an extension of acceptance behaviors' (Bhattacherjee 2001, p. 352), in our research we will examine the influence of perceived risk on intention to repurchase by reviewing previous relevant research and testing real data from online shoppers.

Some studies on the relationship between perceived risk and intention to repurchase have been conducted by researchers. One of the primary contributions associated with perceived risk is the relationship that has been established between perceived risk and brand loyalty (Hoover et al. 1978). As indicated by Hoover et al. (1978), Cunningham studied the behavior

of high-, medium-, and low-risk perceivers who consumed fabric softeners, dry spaghetti, and headache remedies. He found a strong positive relationship between perceived risk and perceived brand commitment. Furthermore, the more seriously the type of risk is perceived, the higher the probability of brand loyalty. Cunningham's study has been supplemented and extended by several other studies, all of which provide general support for a positive relationship between perceived risk and brand loyalty.

Sheth and Parvatiyar (1995) found that consumers tend to keep the loyalty to the previous brand/product if they have a lower perceived risk for their decision making. Crespo (2009) reported in his literature review that several empirical evidences supported the effect of the perceived risk on transaction frequency (Miyazaki and Fernandez, 2001), intention to shop in the future (Liang and Huang, 1998; Vijayasarathy and Jones, 2000; Liao and Cheung, 2001). Mittal (2001) studied the relationship between the risk perceived by business travelers and their post-purchase behavior intention, and found that perceived risk is relevant to consumer's satisfaction and intention to repurchase, when perceived risk is higher, intention to repurchase in the future is lower. Mittal's results is consistent that of Samadi and Yaghoob-nejadi (2009), which indicated that a higher perceived risk led to less future purchasing intention from the Internet.

2.7 Culture

2.7.1 Conceptualization and Operationalization of Culture

As indicated by Refaat El Said (2005), culture is one of the most difficult and complex terms (Williams, 1985). Multiple definitions of culture are proposed in the literature in many disciplines, such as, Anthropology, sociology, psychology, marketing (Tylor, 1871; Linton, 1936; Herskowits, 1948; Parsons and Shills, 1951; Kluckhohn, 1954; Triandis, 1972; Hofstede, 1984; McCraken, 1990). There are various definitions for culture; some of them are discussed below. Since the application of culture rather than concept of culture is our

research interest, this work will focus on the understanding and analysis of the concept of culture as it is used in the research.

Culture is a term with multidimensional interpretations (Weber and Hsee, 1998). Researchers have proposed many different definitions of culture (Doney et al., 1998). Kroeber and Kluckhohn (1952) had already identified over 160 definitions of culture 45 years ago, according to Doney et al. (1998). Table 2.4, abstracted from the study of Assael (2004), Ko et al. (2004), Soares (2004), Refaat El Said (2005), and Keh and Sun (2008), includes some major definitions of culture proposed in the literature.

Tylor (1871) proposed one of the earliest definitions of culture, indicated by Soares (2004). Tylor (1871) defined culture as “the complex whole which includes knowledge, belief, art, morals, custom and any other capabilities and habit acquired by man as a member of society” (in McCort and Malhotra, 1993, p. 97). Following Tylor’s (1871) definition, larger number of definitions on culture has been developed (Soares, 2004).

Recently, Hall (1973) acknowledged that culture stands for the way of life of groups of people, for the sum of their learned behavior patterns, attitudes and material things. This broad definition of culture suggests that people from the same culture form a frame of reference and understanding of each other; based on the way they were brought up (Refaat El Said, 2005).

Sociologists Namenwirth and Weber defined culture as a "system of ideas" that provide a "design for living" (1987: 8). In Clark's review of national character, he describes culture "as a distinctive, enduring pattern of behavior and/or personality characteristics" (1990, p. 66).

According to Hofstede (1991), culture is defined as “the collective mental programming of the mind which distinguishes the members of one group or category of people from another” (p. 5). In other words, the individual members of a group share certain ideas, values, acts, or emotions with other members of the group (Mooij, 1997, in Ko et al., 2004). Cultural values guide the way people select actions, evaluate other people and events, and explain their actions and evaluations (Schwartz, 1992).

Table 2.4. Conceptualization of Culture

References	Definitions of culture
Tylor, 1871	"Culture is that complex whole which includes knowledge, belief, art, morals, customs, and any other capabilities and habits acquired by man as a member of society" (in McCort and Malhotra, 1993, p. 97).
Namenwirth and Weber, 1987	Culture is defined as a "system of ideas" that provide a "design for living" (p. 8).
Linton, 1936	"The total social heredity of mankind" (in Berry et al., 1992, p. 165).
Herskowits, 1948	"Culture is the man-made part of the environment" (in McCort and Malhotra, 1993, p. 97).
Parsons and Shills, 1951	"On a cultural level we view the organized set of rules or standards as such, abstracted, so to speak, from the actor who is committed to them by his own value-orientations and in whom they exist as need-dispositions to observe these rules. Thus a culture includes a set of standards. An individual's value-orientation is his commitment to these standards" (in Erez and Earley, 1993, p. 41).
Kroeber and Kluckhohn, 1951	"Culture consists of whatever it is one has to know or believes in order to operate in a manner acceptable to its members. It is the form of things that people have in their mind, their models of perceiving, relating, and otherwise interpreting (material phenomenon)" (in Hofstede, 1984, p. 21).
Kluckhohn, 1954	"Culture consists in patterned ways of thinking, feeling and reacting, acquired and transmitted mainly by symbols, constituting the distinctive achievements of human groups, including their embodiments in artifacts; the essential core of culture consists of traditional (i.e., historically derived and selected) ideas and especially their attached values" (in Erez and Earley, 1993, p. 41).
Triandis, 1972	Culture is "a subjective perception of the human-made part of the environment. The subjective aspects of culture include the categories of social stimuli, associations, beliefs, attitudes, norms and values, and roles that individuals share" (in Erez and Earley, 1993. p. 41).
Hall, 1973	Culture stands for the way of life of groups of people, for the sum of their learned behaviour patterns, attitudes and material things (Refaat El Said, 2005).
Clark, 1990	He describes culture "as a distinctive, enduring pattern of behavior and/or personality Characteristics" (p. 66).
Hofstede, 1991	Culture is defined as "the collective mental programming of the mind which distinguishes the members of one group or category of people from another" (p. 5). In other words, the individual members of a group share certain ideas, values, acts, or emotions with other members of the group (Mooij, 1997)
Schwartz, 1992	Cultural values are conceptions of the desirable that guide the way people select actions, evaluate other people and events, and explain their actions and evaluations (Keh and Sun 2008).

Source: Assael (2004), Ko et al. (2004), Keh and Sun (2008), Refaat El Said (2005), and Soares (2004)

According to Keh and Sun (2008), cultural values are trans-situational criteria to guide principles in life and represent the implicitly and/or explicitly shared what is good, right, and

desirable in a society. Hofstede (1991) argues that culture is not genetically contingent, but it is affected by the social milieu where people are interacting. In other words, culture is learned, not inherited (Refaat El Said, 2005). Culture has an impact on human behavior, which has been identified as an underlying determinant of consumer behavior, and this extends to e-commerce (Refaat El Said, 2005).

A similar interpretation of culture is also given by Del Galdo (1996). According to Del Galdo (in Refaat El Said, 2005), culture is a learned behavior of a group or society, induced by their immediate environment and surroundings, the history and traditions they have grown accustomed to and their social rules and communication practices. Culture is used to name a group of people identified with a specific set of factors. The culture encompasses individuals who share a similar system of values, history, symbols, and language (Refaat El Said, 2005).

For Thomas (1997, in Refaat El Said, 2005, p. 16), culture is "an orientation system, comprising specific symbols that are handed down from generation to generation within the society, organization or group, that is universal but highly typical of a society, organization or group". This orientation system influences the "perception, thoughts and actions" of all the members in a society (Refaat El Said, 2005, p. 16). As a result, the orientation system defines their "affiliation" (Refaat El Said, 2005, p. 16).

According to Assael (2004, p. 312), "culture is a set of socially acquired values that society accepts as a whole and transmits to its members through language and symbols". Accordingly, culture reflects shared meanings and traditions in a society. For Assael (2004), like lifestyles cultural values reflect a consumer's attitude and opinions, but there are differences between cultural values and lifestyles, that is, compared to lifestyles cultural values are more "enduring, widespread, and deep-seated" (p. 319). Assael (2004) indicated that a culture's values are likely to influence its members' purchases patterns. The increasing importance of international trade in the past two decades makes it essential for marketers to understand the value systems of other cultures as well as their own cultures (Assael, 2004). "Understanding variations in cultural values in different societies is a necessary prerequisite to successful marketing abroad" (Assael, 2004, p. 319).

Furthermore, we should note that national culture is a widely used concept in the conceptualization of culture. “Nation” has been used as a surrogate for culture by many researchers. The concept of national culture is mainly developed by Hofstede (1991; 1996; 2001). Similarly, according to Soares (2004), Doney et al. (1998) proposed to apply the label "national" to culture to distinguish the character of a society from other forms of culture, such as, corporate culture. In addition, Keillor and Hult (1999, in Soares, 2004, p. 79) noted that national concept is a “ reconciliation between the concepts of ‘culture’ and ‘nation’ as the components of national identity serve to bind societies together within national boundaries” . A country’s culture has always being considered as key environmental characteristic underlying systematic differences in consumer behavior (Lynn et al., 1993).

It is should noted that the concept of national culture is controversial in the context of globalization. Some researchers insist that despite globalization, people in a nation continue to have their own habits and tastes distinct from those of in other different nations; their values and norms are rooted in their national cultures (Zhu et al., 2006, in Leng and Botelho, 2010). In other hand, “cultural boundaries between nations are becoming increasingly fuzzy with economic integration” (Doney et al. 1998, p. 607). In addition, the norms and values are shared in a population may not be consistent across all segments of that population (Doney et al. 1998).

In conclusion, one of the most significant differences among people is their cultural background. The study of cultural differences aims to identify cultural profiles in which peoples are more or less similar in values and behavior. The cultural models have been developed to compare the similarities and differences of two or more cultures or sub-cultures by using cultural variables. The following section will discuss these cultural models and their influence on perceived risk.

2.7.2 Cultural taxonomies

According to Soares (2004), the use of culture as an explanatory variable requires the identification of its dimensions. In other words, to use culture to explain cultural differences we need to unpack the culture. A cultural model compares the similarities and differences of two or more cultures by using cultural variables (Hofstede, 1996, in Soares, 2004). Cultural models have been developed based on questionnaires, surveys, extensive interviews, semi-structured in-depth interview, and years of experience and observations (Soares, 2004).

A number of approaches have been used to identify culture dimensions (Soares, 2004). Lenartowicz and Roth (1999) propose the following four typologies to indentify culture: Ethnological Description; Use of Proxies-Regional Affiliation; Direct Values Inference (DVI) and Indirect Values Inference (IVI). The description of the four approaches and the main researchers who used the approaches, abstracted from the study of Soares (2004), are presented in table 2.5.

First, **Ethnological description** is associated qualitative approaches. This approach is typically used in sociological, psychological and anthropological research area (Lenartowicz and Roth, 1999, in Soares, 2004, p. 46). According to Soares (2004), Hall's (1973) culture model is representative of this approach. His proposition of high- and low-context cultures are based on the way messages are communicated in each culture: explicitly or in the context (Soares, 2004, p. 46). Similarly, Gannon's (2001) approach is also related to Ethnological description. Gannon uses metaphors as a method to understand and compare the national cultures. Ethnological description approach provides an intuitively and subjective appealing description, but it is useful in understanding national cultures (Soares, 2004).

Second, **Use of proxies - Regional affiliation** approach conceptualizes culture based on cultural characteristics that reflect Nationality or place of birth (Lenartowicz and Roth, 1999, in Soares, 2004).

The "proxies" approach has been used at different levels of culture (Soares, 2004). "Culture can be defined on different levels of analysis, ranging from a group level to an organizational

level or a national level" (Erez and Earley, 1993, p. 23, cited by Soares, 2004). Similarly, Dawar and Parker (1994, in Soares, 2004) proposed the "ethno-geographic trade area" as an alternative operationalization of culture, defining four cultural clusters: North America; EEC; non-EEC Europe; and others. In addition, according to Soares (2004), Samli (1995) argued that consumer behavior could be predicted by using a scoring system to evaluate cultural variables, which can allow the identification of specific international consumer behavior patterns.

Table 2.5. Four cultural approaches and their examples

Approaches	Approache description	Examples
Ethnological description	This approache pertains to "qualitative approaches, typically sociological, psychological and/or anthropological, used as bases for identifying and/or comparing cultures" (Lenartowicz and Roth, 1999, p. 783). This approach guides emic studies of culture, which aim at studying intensively a single culture to describe and understand indigenous, specific phenomena. It has been rarely used in international business (Lenartowicz and Roth, 1999).	• Hall (1973) • Gannon (2001: XV)
Use of proxies - Regional affiliation	Commonly used in business, this approach consists of defining culture based on characteristics that reflect or resemble culture such as Nationality or place of birth (Lenartowicz and Roth, 1999).	• Hofstede (1991) • Erez and Earley (1993, p. 23) • Dawar and Parker (1994) • Samli (1995)
Direct Values Inference	This approach comprises measuring the values of subjects in a sample, and inferring cultural characteristics based on the aggregation of these values (Lenartowicz and Roth, 1999).	• Hofstede (1984, 1991, 2001) • Schwartz (1992; 1994); Schwartz and Bilsky (1987; 1990); Schwartz and Sagiv (1995)
Indirect Values Inference/Benchmarks	This approach is based on the use of secondary data to ascribe characteristics of cultural groupings without directly measuring members of the group.	• Hofstede's scores of national cultures (Hofstede, 1984).

Source: Soares (2004, p. 46-47)

Third, **Direct Values Inference (DVI)** approach identifies cultural characteristics by measuring the values of subjects, and then by aggregating of these values evaluated by the subjects (Lenartowicz and Roth, 1999, in Soares, 2004).

Hofstede's culture model (1984; 1991; 2001) is associated with this approach. Hofstede (1991) build his cultural model based on a multinational survey included 100 items and covered 116,000 IBM employees distributed through 72 countries. He (1991) highlighted cultural differences across nations based on the following aspects: the degree of integration of individuals within groups (Collectivism versus Individualism), the differences in the social roles of women versus men (Femininity versus Masculinity), the ways of dealing with inequality (Power Distance), the degree of tolerance for the unknown (Uncertainty Avoidance), and concerns about the present, the past, and the future (Long-Term versus Short-Term orientation). These five cultural variables together structure the Hofstede's cultural model among national cultures (Refaat El Said, 2005).

According to Soares (2004), another representative culture model of this approach is the one proposed by Schwartz (1992; 1994). He (1992; 1994) used two culture dimension poles - Conservatism versus Autonomy, Hierarchy and mastery versus Egalitarian commitment and Harmony with nature, to identify universal psychological human values (Soares, 2004).

Lastly, **Indirect Values Inference (IVI**) approach measures the characteristics of culture groups based on the use of empirical data. For example, Hofstede's (1991) cultural modeling method is based on the scores of culture values evaluated by the subjects from different countries (Soares, 2004).

All four approaches mentioned above have both advantages and weaknesses (Soares, 2004). Lenartowicz and Roth (1999, p. 787) indicate that "no single methodology is able to address the inclusive set of criteria relevant to culture assessment in business studies". Accordingly, we need to combine the approaches to understand better cultural models.

Given the increasing use of cultural model in cross-cultural research and the importance of cultural model in explaining consumer behavior differences across the world, the following section will discuss the five widely used culture model in the cross-culture research area, that

is, Hofstede's cultural model, Trompenaar's model, Schwartwz's model, and Hall's model. In the next section, the conceptualization of these cultural model, the adequacy and the limitations of using these models have been investigated.

2.7.2.1 Hofstede's Cultural Model

One way to approach the study of culture is through the identification and measurement of dimensions of culture (Dickson et al., 2003). Several different typologies of cultural values or culture dimensions have been developed, in which the most widely recognized cultural dimensions are undoubtedly the ones of Hofstede (1980; 2001). Hofstede's (2001) cultural model is constructed based on a large research project investigating the differences in national culture among business employees in the IBM across more than 50 countries, as well as a series of studies on other samples. "These studies together identifies five independent dimensions of national culture differences, each rooted in a basic problem with which all societies have to cope, but on which their answers vary" (Hofstede, 2001, p. 29).

At the national level, Hofstede delineated four dimensions of culture: power distance (PD), uncertainty avoidance (UA), masculinity (MAS), and individualism (IDV). The Chinese cultural connection is subsequently added as a fifth dimension which is designed to assess a one of certain Confucian traits - concept of time (Robertson and Hoffman, 2000). "These five dimensions were empirically validated, and each country could be positioned on the scale represented by each dimension" (Hofstede, 2001, p. 29). "The purpose of the analysis was to find value differences among countries and to relate these to characteristics of the countries; one could not expect to find meaningful relationships for measures that were not more or less stable over time" (Hofstede, 2001, p. 52).

Hofstede's (2001) cultural dimensions are as follows:

Individualism versus Collectivism (IDV/COL), "is related to the integration of individuals into primary groups" (Hofstede, 2001, p. 29). This measure the degree to which individuals

see themselves and make decisions based on 'I' rather than 'We' (Hofstede, 1991). More precisely, according to Kim (2008), individualism refers to the degree to which a culture reinforces individual achievement and independence. "Individualists define the self as an autonomous entity independent of groups, whereas collectivists define the self in terms of its connectedness to others in various in-groups, while high level of collectivism fosters greater communications, cooperation, sharing similar opinions and harmony within the society" (Kim, 2008, p. 18). Examples of individualistic countries are: Australia, Canada, The US, the UK, and Holland, while Latin America countries are extremely collectivistic countries.

The high individualism score indicates "a culture with a more individualistic attitude and relatively loose bonds with others. A low individualism ranking indicates a more collectivist culture with close ties between individuals" (Kim, 2008, p. 17). In individualistic countries, individuals are mainly concerned about their own opinion, they value their personal time and want to spend it on their personal activities, freedom to adjust their work schedule to better suit their lifestyle is important, and they like the challenge of achieving a personal goal. By contrast, members of collectivistic cultures feel that they belong to a large group and care about the well-being of its other members (Leng and Botelho, 2010). For example, the Chinese are considered a fairly collectivistic culture, while France is individualistic in comparison (Hofstede, 1991). In France, young people generally leave their parent's home without feeling obliged to care for them as they age or to consult them before making decisions. Hofstede (2001) also found that persons in high-IDV countries seemed to rely more on media and less on, for example, their social networks for information.

Markus and Kitayama (1991) equal the terms independence and interdependence to individualism and collectivism to represent two diverging views of self that are derived from the two contrasting cultures (Kim, 2008). According to Kim (2008), the independent view of self is grounded in a belief in individual culture where the self is considered unique and autonomous. By contrary, the interdependent view of self is influenced by the social groups (family, group, community) and put maintaining harmony first. Thus, in more collectivist cultures, decisions are influenced by the group norm and members' opinions (Kim, 2008).

Power Distance (PD), "is related to the different solutions to the basic problem of human inequality" (Hofstede, 2001, p. 29). Power distance is defined as "the extent to which the less

powerful person in a society accepts inequality in power and considers it as normal. Inequality exists within any culture, but the degree of it that is tolerated varies among cultures" (Hofstede, 1984, p. 390).

Mulder (1977) defines power as "the potential to determine or direct (to a certain extent) the behavior of another person or other persons more so than the other way round," and power distance as "the degree of inequality in power between a less powerful Individual and a more powerful other, in which Individual and other belong to the same (loosely or tightly knit) social system" (p. 90, cited by Hofstede, 2001). Hierarchy or unequal power distribution among elements of a society is more common in large power distance cultures. Countries that score high in the power distance tolerate more inequality and have more need for power, wealth, prestige and status (Hofstede, 1991).

Yun et al. (2008) acknowledge that power distance affects the way people interact with others in a society. People in low power distance cultures responded less favorably than people in high power distance cultures when given little opportunity to voice their opinions in a decision-making process (Brockner et al., 2001).

For example, it is not surprising to encounter many types of formalities in China, which is a large power distance country. At school, students call their teachers by their last names; at the workplace, orders from superiors are accepted by subordinators without objection; and at home, the younger respect and listen to the elder (Leng and Botelho, 2010). By contrast, for example, at the workplace, American subordinates and superiors consider each other equal but playing different roles and each could possibly be switched in the future.

According to Soares (2004), the influence of power distance has been investigated in several areas, such as advertising appeals (Albers-Miller and Gelb, 1996); Information exchange behavior (Dawar, Parker and Price, 1996); innovativeness (Yaveroglu and Donthu, 2002; Yeniyurt and Townsend, 2003; Van Everdingen and Waarts, 2003), and perceived service performance (Birgelen et al, 2002).

Uncertainty Avoidance (UA), "is related to the level of stress in a society in the face of an unknown future" (Hofstede, 2001, p. 29). This measures the degree of tolerance for

uncertainty. “Countries with weaker uncertainty avoidance tendencies demonstrate a lower sense of urgency, expressed, for example, in lower speed limits” (Hofstede, 2001, p. 148). Latin countries tend to score high on this dimension. On the other hand, Denmark, Great Britain, Hong Kong and Singapore are examples of countries having low scores (Hofstede, 2001). Cultures with higher uncertainty avoidance are less tolerant of ambiguity and unexpected situations, therefore their societies are structured with stricter rules for social behavior, and acting as planned is important. According to Leng and Botelho (2010), cultures with higher uncertainty avoidance are less tolerant of ambiguity and unexpected situations; they need accordingly stricter rules for social behavior, whereas people in a culture characterized as low uncertainty avoidance are more willing to accept risks. “This tolerance for uncertainty is partly a matter of individual personality and partly a matter of collective culture. Societies differ in their societal norms for uncertainty avoidance, and in a given society’s institutions, members are socialized toward that society’s norm” (Hofstede, 2001, p. 148).

Hofstede (2001) mentioned that UA correlated negatively with the adoption of new media, use of Internet. However, it also correlated negatively with the use of conventional media, newspaper reading, daily newspaper sales, and booking reading. This suggests for low-UAI countries a more open-minded mentality, in searching for information and in accessibility to innovation.

Masculinity versus Femininity (MAS), “is related to the division of emotional roles between men and women” (Hofstede, 2001, p. 29). As indicated by Leng and Botelho (2010), Hofstede’s (2001) measures examine the extent to which a culture has its social roles clearly distributed among its members. Masculine societies value “male characteristics” such as assertiveness, competitiveness, success, and status, and they largely emphasize the values of wealth, material success, ambition and achievement. Feminine societies are more inclined to solidarity, modesty, caring and quality of life while emphasizing values such as benevolence, equality, caring for the weak and preserving the environment (Hofstede, 1991).

Long-term versus Short-term Orientation (LTO), “is related to the choice of focus for people’s efforts: the future or the present” (Hofstede, 2001, p. 29). This last dimension was later added to Hofstede’s initial four cultural dimensions. It was interpreted as representing a

range of Confucian-like values and was termed Confucian Dynamism. Hofstede (1991) later proposed the long- versus short-term designation as more appropriate for this dimension. East Asian countries have long-term oriented cultures, while the Philippines, Nigeria, and Pakistan all have short term orientations. In long-term oriented cultures, frugality and perseverance are preferred virtues and deferred gratification of needs is accepted and encouraged, while in short-term oriented cultures personal steadiness and stability and protecting one's face prevail.

According to Hofstede (2001), France ranks high on individualism dimension, which refers to French people value more independence and their own opinions, while China characterized as collectivist society values more interdependent and others opinions. Besides, France illustrates their high emphasis on uncertainty avoidance. Cultures with high uncertainty avoidance try to minimize uncertainty through strict laws and rules as well as safety and security measures. People in these societies tend to be more emotional, and are motivated by nervous energy. In contrast, societies with lower uncertainty avoidance are more tolerant of new and different opinions, such as China. Furthermore, China ranks first on long-term orientation, which value thrift and perseverance; whereas short-term-oriented cultures view that spending now is more important than saving for tomorrow. The influence of culture dimensions on perceived risk differences were discussed in the next sections.

Table 2.6. The Cultural Profiles of China and France

Cultural Dimension	Uncertainty avoidance(UAI)	Power distance(PDI)	Individualism (IND)	Masculinity (MAS)	Time orientation (LTO)
China	40	80	20	66	118
	Fairly low	High	Low	High	Fairly long
France	86	68	71	43	
	High	High	High	Fairly low	Moderate

Source: Hofstede (1980, 2001)

Compared with other culture models, Hofstede's culture model (1984, 1991, and 2001) are mostly widely used in cross-cultural research. Specifically, as indicated by Soares (2004), his

five culture dimension model contributes to understanding many disciplines in cross-cultural areas, such as, intercultural communication (Samovar, Porter and Stefani, 1998), perceived risk (Mitchell and Vassos, 1997), innovativeness (Lynn and Gelb, 1996; Steenkamp et al., 1999; Yaveroglu and Donthu, 2002; Van Everdingen and Waarts, 2003), interpersonal information exchange (Dawar, Parker and Price, 1996), and service evaluations (Donthu and Yoo, 1998; Liu, Furrer and Sudharshan, 2001; Birgelen et al, 2002). The reasons why Hofstede's cultural model is widely used in the cross-cultural studies compared with other cultural models and the limitations of Hofstede's cultural model were discussed later in this chapter.

2.7.2.2 Schwartwz's Cultural Model

'Schwartz Value Survey' (SVS) proposed by Schwartwz's (1992; 1999) have considerably influenced today's values' structure in social and cross-cultural psychology (Bilsky and Jehn, 2002). As indicated by De Juan Vigaray and Hota (2008), research to date has studied values using different theories and typologies, the most notable one being Schwartz's Value Typology (e.g., Schwartz, 1992; 1999), both through a single-culture study, as well as in a cross-national or cross-cultural context.

Using samples of elementary school teachers and of university students in 23 countries, Schwartz's (1992; 1999) proposed two-dimensional map of the positions of the values relative to each other for the individual respondent level, then he clustered the 56 values into 10 categories (Hofstede, 2001). The total value structure is organized into two sets of opposing higher-order alue types, arrayed on two bipolar dimensions.

According to Ros et al. (1999) and De Juan Vigaray and Hota (2008), the first dimension **openness to change versus conservation** opposes values that emphasize own independent thought and action (self-direction and stimulation) to values that emphasize submissive self-restriction, preservation of traditional practices, and protection of stability (security, conformity, and tradition) (Schwartz, 1999). The second dimension **self-transcendence**

versus self-enhancement opposes values that emphasize acceptance of others as equals and concern for their welfare (universalism and benevolence) to values that emphasize the pursuit of one's relative success and dominance over others (power and achievement) (Schwartz, 1999). Hedonism includes elements of both openness to change and self-enhancement.

A review of the literature suggests that self-transcendence versus self-enhancement and conservation versus openness to change are most relative to perceived risk. According to Keh and Sun (2008), self-transcendence comprises the values of universalism (i.e., understanding, appreciation, tolerance, and protection of the welfare of all people and nature) and benevolence (i.e., preservation and enhancement of the welfare of people in close relationships). Whereas self-enhancement are the values of power (e.g., social status and prestige, control or dominance over people and resources) and achievement (e.g., personal success through competence).

The dimension conservation versus openness to change arrays values in terms of the extent to which they motivate people to preserve the status quo and the certainty they provide in relationships with close others (versus to follow their own intellectual and emotional interests) (Schwartz, 1992, in Keh and Sun, 2008). Conservation combines the values of security (i.e., safety; harmony; and stability of society, relationships, and self), conformity (i.e., restraint of actions likely to upset others and violate social norms), and traditions (i.e., respect, commitment, and acceptance of cultural customs). By contrary, openness to change results from stimulation (i.e., need for variety) and self-direction values (i.e., people's need for control, autonomy, and independence).

2.7.2.3 Hall's Cultural Model

For Hall (1973), culture is a program of behavior. To identify how people from different countries respond to various situations, he used **Context** (low/high context communications), **Space** (universalism/particularism) and **Time** (monochromic/polychromic time) as cultural variables (Kim, 2008; Refaat El Said, 2005).

According to Hofstede (2001), Hall's (1976) distinction of cultures is on the basis of their ways of communicating. Context refers to how individuals and their society seek information (Kim, 2008). "A high-context communication or message is one in which most of the information is either in the physical context or internalized in the person, while very little is in the coded, explicit, transmitted part of the message. A low-context communication is just the opposite: i.e., the mass of the information is vested in the implicit code" (Hall, 1973, p. 91).

"People from high-context cultures (e.g., Japanese, Chinese, Italians, Latin Americans, Arabs, Africans, Koreans, Southeast Asians, etc.) obtain information from personal information networks such as friends, business acquaintances, and relatives, whereas people from low-context cultures (e.g., Swiss, Austrians, New Zealanders, South Africans, Americans, Canadians, etc.) seek information about decisions from direct information sources such as watching, reading, reports, and databases" (Kim, 2008, p. 19).

Hall's distinction can be considered as an aspect of collectivism versus individualism: High-context communication fits the collectivist society, and low-context communication is typical for individualist cultures. In practice, high-context versus low-context overlaps with collectivism versus individualism. Many things that in collectivist cultures are self-evident must be said explicitly in individualist cultures (Hofstede, 2001).

2.7.2.4 Trompenaars' Cultural Model

Trompenaars (1993) conceptualized his cultural model using a three layer Onion Model. This three layer model consists of a Core, representing the implicit and unspoken assumptions that underlie the way people cope with their environment; a Middle Layer, referring to the norms and values which evaluate whether things are good or bad or right or wrong, and an Outer Layer contains all the aspects of life, such as language and rituals (Refaat El Said, 2005). Trompenaars' model is based on 16 questions from an multinational survey across 30 companies in 50 countries.

Universalism versus Particularism is the Trompenaars's first cultural dimension, which is associated with Relationships with People. "The question at the heart of this dimension revolves around whether rules or relationships regulate workplace behaviors. Universalists (rules) are rule-based, defining morality and ethics; while particularists (relationships) are relationship-based, where in serious situation" (Sitaram and Prosser, 1998, p. 121).

Individualism versus Collectivism is similar to Hofstede's. The two maps overlap at this coordinate.

Neutral versus Affective relates to the display of emotion at work. Those who are from cultures which do not show much emotion at work are neutral; those who do are affective (Trompenaars, 1993).

Specific versus Diffuse distinguishes between people who make many friendships, which are normally brief and superficial, and those who make very few but very deep friendships which last for many years (Trompenaars, 1993).

Achievement versus Ascription describes the difference between those who value achievement as the primary dimension of success, and those who value not only achievement, but also the background of the colleague, his or her education, other attainments, and even the reputation of the family or extended family itself (Trompenaars, 1993).

Attitudes toward Time emphasize on the importance of the past, present, or future (Trompenaars, 1993).

Attitudes toward the Environment is related to harmony versus control of the outside world (Trompenaars, 1993).

2.7.2.5 Clark's Cultural Model

Clark (1990) categorizes dimensions from various theoretical and empirical taxonomies according to their relatedness (Doney et al., 1998). They are: relations to authority; relations to self; relations to risk and propensity to change; and flexibility; need to achieve; and locus of control. Clark's (1990) culture dimensions overlaps Hofstede's (1984, 1991, 2001) culture model. The three dimensions proposed by Clark (1990) were discussed as following.

Relation to Self encompasses issues of "personality" and **"**self-concept" (Doney et al. 1998, p. 607). Two of Hofstede's (1984) dimensions deal with relation to self. First, individualism/collectivism is "related to the integration of individuals into primary groups" (Hofstede, 2001, p. 29). This measure the degree to which individuals see themselves and make decisions based on 'I' rather than 'We'. "Norms and values associated with individualism/collectivism reflect the way people interact, such as the importance of unilateral versus group goals, the strength of interpersonal ties, respect for individual accomplishment, and tolerance of individual opinion" (Doney et al. 1998, p. 607). Second, masculinity/femininity is related to "the division of emotional roles between men and women" (Hofstede, 2001, p. 29). Masculine societies value more 'male characteristics' such as assertiveness, competitiveness, success, status. Feminine societies are more inclined to solidarity, modesty, caring and quality of life (Hofstede, 2001).

Relation to Risk reflects "the perception, evaluation, and experience of risk" (Clark, 1990, p. 614). Uncertainty avoidance "is related to the level of stress in a society in the face of an unknown future" (Hofstede, 2001, p. 29).

Relation to Authority reflects "emphasis given to hierarchical relations in family, social class, and reference groups" (Clark, 1990, p. 614). This dimension overlaps Hofstede's dimension - power to distance, "which is related to the different solutions to the basic problem of human inequality" (Hofstede, 2001, p. 29).

2.7.2.6 Douglas's (1966, 1978) Culture Model

Douglas (1966, 1978) termed four types of worldviews, that is, individualistic-, egalitarian-, hierarchical-, and fatalistic worldviews, and they have a self-preserving pattern of risk perceptions (Oltedal et al., 2004).

Individualists fear things that might obstruct their individual freedom. "The individualist sees the nature as self-preserving, with the ability to reestablish its own status quo" (Oltedal et al., 2004, p. 19). Hence, people do not need to care a great deal about how nature is treated (Oltedal et al., 2004).

Egalitarians "are people who can be positioned in the high group-low grid quadrant, are also characterized by high degree of the group dimension, but, contrary to hierarchists, their lives are not prescribed by role differentiation" (Krag, 2009, p. 181). Egalitarians are characterized by "an intense sense of equality" (Krag, 2009, p. 182).

Hierarchical cultures, "meaning individuals whose worldview corresponds to high grid - high group, are characterized by strong group boundaries and binding prescriptions" (Krag, 2009, p. 181). "Hierarchical cultures emphasize the importance of establishing and preserving the 'natural order' of the society" (Krag, 2009, p. 181).

Fatalists "take little part in social life, though they feel tied and regulated by social groups they do not belong to" (Oltedal et al., 2004, p. 20). In general, fatalists try not to know or worry about things they think they can't do anything about (Oltedal et al., 2004).

In conclusion, researchers have attempted to dimensionalize national culture based on empirical studies. There has been considerable convergence in terms of conceptual domain (Doney et al., 1998). For example, in the review of national character, Schwartz's (1999) cultural dimension self-transcendence versus self-enhancement; Hall's (1973) High-context communication fits the collectivist society, and low-context; Trompenaars's (1993) individualism versus collectivism; Clark's (1990) culture dimensions overlaps Hofstede's

(1984; 1991; 2001) culture model; and Douglas's (1966; 1978) individualist is similar to Hofstede's (1998; 2001) individualism/collectivism.

2.7.3 Support and Criticisms of Hofstede's Culture Model

Hofstede's work has been supported and criticized. It has been deemed as "the beginnings of the foundation that could help scientific theory building in cross-cultural research" (Sekaran, 1983, p. 69). Hofstede's (1991) cultural variables serve as the most influential culture theory among social science research (Nokata and Sivakumar, 2001; Pavlou and Chai, 2002). A review of the Social Science Citation Index (SSCI) resulted in 1036 quotations in journals during the period 1980 to September 1993 (Sondergaard, 1994). Hofstede's cultural framework has also received strong empirical support; the replication studies of his work (1968 and 1972) over a period of time have largely confirmed his results (Sondergaard, 1994).

Furthermore, the 2001 edition of Hofstede's book, Culture's Consequences, describes and analyses a large number of published cross-national studies in a variety of disciplines for which the results were significantly and meaningfully correlated with scores on his cultural variables. Most of this research reported Hofstede's variables to be reliable and valid. Hofstede's cultural model has extended to Information Systems research. Myers and Tan (2002) noted that much of the literature concerned with cultural issues in the IS field has relied on Hofstede's work. They analyzed 36 studies from the cultural IS literature, and noted that 24 of these used some or all of Hofstede's cultural variables.

On the other hand, scholars have also criticized Hofstede's work. The following paragraphs were used to discuss what are the advantages and the limitations of Hofstede's culture model, why we chose his culture model in the study and how we overcome the limitations of Hofstede's cultural model.

2.7.3.1 Arguments in Support of Hofstede's Cultural Model

Hofstede's cultural model (1980; 2001) is one of the most widely used models among scholars and practitioners in the cultural research area. His cultural model has been popular for several reasons (Jones, 2007; Jones and Alony, 2007; Yoo et al., 2011).

Relevance

As indicated by Jones (2007); Jones and Alony (2007), during the time of Hofstede's cultural model (1980) delivery there was very little work on culture, and at that time many businesses were just entering the international market and were facing difficulties; they were asking for advices on cross-cultural issues. Hofstede's work met this demand for guidance. On the other hand, scholarly attention was also turning toward cross-culture during that period, and Hofstede was considered a pioneer and pathfinder in cross-cultural research area (Jones, 2007; Jones and Alony, 2007). Soares et al. (2007) also confirmed the relevance of the Hofstede cultural dimensions to international business and consumer behavior through a comprehensive review of culture literature (Yoo et al., 2011).

Rigour

Hofstede's cultural dimensions were empirically and theoretically developed, while many other cultural models remained in the conceptualization stage (Yoo et al., 2011). This is just what scholars and marketers had been asking for (Jones, 2007; Jones and Alony, 2007). Robertson (2000) reported that the cultural dimensions developed and empirically examined by Hofstede (1980) represent complex phenomena of culture. Hofstede's data set, which contains over 116,000 subjects across 66 nations, is the most exhaustive sample of cross-culturalresearch that exists today (Robertson, 2000). The survey employed was designed to measure different cultural values among people from different nations. These values were then classified into cultural dimensions on which Hofstede's generalizations about national culture are based (Robertson, 2000).

All-around Cultural Dimensions

Yoo et al. (2011) stated that Hofstede's (1984; 2001) cultural dimensions fully cover major conceptualizations of culture developed through decades. Through a thorough review of culture literature, Clark (1990) insisted that there are many similarities among the different typologie of culture, and their dimensions are well captured in Hofstede's typology.

Replication

Jones (2007); Jones and Alony (2007) noted that Søndergaard (1994) compared the replications of Hofstede's research. 61 replications were analyzed. The majority of the replications confirmed Hofstede's predictions. Similarly, Yoo et al. (2011) indicated that social sciences and cross-cultural researchers have heavily replicated Hofstede's cultural typology and confirmed it to be the most important cultural theory. According to the Social Science Citation Index, a total of 2,700 refereed journal articles have cited Hofstede's work (Hofstede, 2001). Several studies were developed not as replications, but along similar lines, to test the relevancy of Hofstede's questions (Jones, 2007; Jones and Alony, 2007). These have also confirmed the accuracy of Hofstede's cultural dimensions.

Application

According to Soares (2004), Hofstede's work was developed in a work-related context and was originally applied to human resources management, it is being used yet increasingly in business and marketing studies (e.g., Sondergaard, 1994; Sivakumar and Nakata, 2001; Shamkarmahesh et al., 2003). Researchers have found meaningful relationships between national culture and important demographic, geographic, economic, and political indicators of a society by using Hofstede's cultural model (Yoo et al., 2011). This model has been widely accepted and applied at both country and individual levels in cross-cultural studies.

2.7.3.2 Arguments in Criticisms of Hofstede's Cultural Model

It is important to note that, though widely used and cited, Hofstede's work has received criticism in its validity and its limitations at the level of both theory and methodology (Kim, 2008). Hofstede's cultural model should be used with cautions. Many arguments (Dorfman and Howell, 1988; Clugston et al., 2000; Robertson, 2000; Jones, 2007; Jones and Alony, 2007; Agarwal et al., 2010; Yoo et al., 2011) were discussed in the following paragraphs.

Out-dated Data

Some researchers have claimed that Hofstede's work is outdated since empirical work took place in 1967-1973 (Soares, 2004), which is too old to be of any modern value, particularly with today's rapidly changing global environments, globalization and convergence (Jones and Alony, 2007). Hofstede argued that "the cross-cultural outcomes were based on centuries of indoctrination, recent replications have supported the fact that culture will not change overnight" (Hofstede, 1998, p. 481). For Hofstede (1998), although cultures do change, this change is believed to be very slow and relative cultural differences should be extremely persistent. Culture change basic enough to invalidate the country index scores should not be recognizable for a long period, perhaps until 2100 (Hofstede, 2001).

One Company Approach

Using data from one single corporation (IBM) has been considered a limitation (Schwartz, 1994, Erez and Earley 1993; Lenartowicz and Roth, 2001), as indicated by Soares (2004). Jones and Alony (2007) criticized that a study based on only one company cannot possibly provide information on the entire cultural system of a country. Soares (2004) argued for Hofstede's sampling technique by stating the need for matching samples derives from the difficulty of obtaining representative national samples, which has been considered the right option for cross cultural studies. In addition, Hofstede points out that he was not making an absolute measure, he was merely measuring differences between cultures and this style of cross-sectional analysis was appropriate (Hofstede, 1998, p. 481, cited by Jones and Alony,

2007). “Any set of functionally equivalent samples from national populations can supply information about such differences” (Hofstede, 2001, p.73, cited by Soares, 2004). In addition, Hofstede argued that “the use of a single multinational employer eliminates the effect of the corporate policy and management practices from different companies influencing behavior differently, leaving only national culture to explain cultural difference” (Hofstede, 1980, in Jones, 2007, p. 5).

Cultural Changes

Hofstede’s cultural model has been criticized for equating nation with culture (Kim, 2008). “Unlike in typical consumer research where a metric is administered to an individual to accurately measure his or her differences from others, Hofstede’s metric has been used in such a way that individual are equally assigned Hofstede’s national culture indices by their national identity” (Yoo et al., 2011, p. 195). Hofstede’s study assumes that national domestic population is a homogenous whole. Accordingly, most of the criticisms of his work focus on his implicit assumption of the homogeneity of national culture. These critics stress on the heterogeneous nature of culture, and claim that there is much evidence against treating the concept of national culture through the use of scores on particular variables, as mentioned by Refaat El Said (2005).

Robertson (2000) states that many of the generalizations about cultural implications related to organizational behavior have minimal support at the individual level and may be inappropriate (Chen et al., 1998). Agarwal et al. (2010) confirm that global trends have increased the heterogeneity of attitudes and behaviors of consumers within countries and, at the same time, increased commonalities across countries. For instance, Heuer et al. (1999, in Agarwal et al., 2010) find that continuous economic development over a period of 30 years in Indonesia resulted in an unprecedented socio-cultural transformation. That is, the cultural difference between U.S. and Indonesian managers in terms of individualism and power distance declined over time. Accoring to Agarwal et al. (2010), although national cultures endure over time and they are still valid as collective identities (Hofstede 1991), there will be similarities across nations in culture specific beliefs and attitudes related to work practices and consumption patterns.

Hofstede (2001, in Agarwal et al., 2010) defends himself that culture changes very slowly, national culture has been treated as a relatively stable construct that reflects a shared knowledge structure within a nation. For Hofstede (2001, in Agarwal et al., 2010), the mental programs of people around the world do not change rapidly, national culture, particularly individualism–collectivism thus should endure over time.

However, the study of Fernandez et al. (1997) suggests that there have significant shifts in values classification in some countries since Hofstede conducted his original study. Their finding underscores the fact that, although a nation's work-related values are deep-seated preferences for certain end states; they are subject to change over the years as external environmental changes shape a society.

Similarly, in the study of Wu (2006), the changes of cultural values over time were also compared and discussed. The scores on most of the cultural dimensions were different from Hofstede's (1984) study. The result demonstrated that cultural values can change over time. WU (2006) concluded that when the political, societal, and economic environments change, people's cultural values also change. For instance, when test culture dimension uncertainty avoidance, the author find that participants (administrative workers in major universities in both countries) from both cultural groups (United States and Taiwan) tend to have a high uncertainty avoidance value. Hofstede's (1984) study demonstrated that Taiwan was a medium uncertainty avoidance culture; whereas the United States was a medium/high uncertainty avoidance culture. The results of this current study are different from Hofstede's (1984) study. As for the cultural dimension collectivism versus individualism, the Taiwanese participants have a high collectivism value. But, the U.S. participants seemed to be more collectivistic than participants in Hofstede's (1984; 2001) study.

Poor Reliability

On the statistical level, Spector and Cooper (2002, cited by Refaat El Said, 2005) criticized Hofstede's scales for their poor internal consistency reliability. For them (2002, cited by Refaat El Said, 2005), this may lead to the conclusion that the scales do not assess a single homogeneous construct and that it should be used with caution. Similarly, Blodgett et al. (2008, in Yoo et al., 2011) also examined the reliability and validity of Hofstede's cultural

framework at the individual consumer level and found the reliability of each dimension was low, and the factor analyses did nto produce a coherent structure. Hofstede (2002) admitted that his scales might produce low reliability scores at the individual level, simply because the scales were designed for comparing country level data. For him, "the reliability of an instrument designed for comparing country means can only and should only be tested across countries; one should not expect that applying a reliability formula like Cronbach's Alpha across individuals provides information about reliability across countries" (Hofstede, 2002, p. 171).

2.7.3.3 CVSCALE Adapted from Hofstede's (2001) Cultural Model Measurement

Hofstede's cultural dimension scales were originally designed for country-level analysis. However, cross-national researchers have used them at the individual level of analysis. Therefore, "conflicting findings in prior studies can be attributed to the disparity between the theoretical and methodological underpinnings of Hofstede's conceptualization inherent in the two levels of analysis" (Oyserman et al., 2002; Kirkman, Lowe, and Gibson, 2006), as indicated by Agarwal et al. (2010, p. 21).

Responding to the call for developing a psychometrically sound measure of Hofstede's culture, the new scales have been proposed (e.g., Dorfman and Howell, 1987; Furrer et al., 2000; House et al., 2004; Markus and Kitayama, 1994; Oyserman, 1993; Srite and Karahanna, 2006; Vitell et al., 2003; Voich, 1995; Yoo, 1996). The researchers and their cultural measure instruments were presented in the table 2.7.

Table 2.7. Instruments for Measuring Culture

Original Publication	The instrument	Psychometric properties of the instrument
Brockner et al.,2001	Power Distance (PD)	Scale 1-5; Cronbach's α: .26/.66/.72/.75/.73/.77 depending on the sample; test-retest: not available
Chew, 1996	Individualism (IND) Risk Liking	Scale 0-9; Cronbach's α: .78/.73 depending on the sample; test-retest: not available
Dorfman and Howell, 1988	Individualism (IND) Masculinity (MAS) Power Distance (PD) Uncertainty Avoidance (UA) Paternalism Dimension:	Scale 1-5; Cronbach's α: .63/.80/.57/.73 for subscales; test-retest: not available
Earley and Erez, 1997	Power Distance (PD)	Scale 1-5; Cronbach's α: not available; test-retest: not available
Earley, 1993	Individualism (IND)	Scale 1-5; Cronbach's α: .91; test-retest: not available
Furrer et al., 2000	Individualism (IND) Long-term orientation Masculinity Power distance Uncertainty avoidance	Scale -3 +3; Cronbach's α: not available; test-retest: not available
Gaines et al., 1997	Collectivism (COL) Individualism (IND)	Scale 1-5; Cronbach's α: not available; test-retest: not available
House et al., 2004	Uncertainty Avoidance Gender Egalitarianism Assertiveness Institutional collectivism In-group collectivism Humane Orientation Future Orientation Achievement orientation Power distance	Scale: 1-7; Cronbach's alpha: .72 (performance orientation), .75 (assertiveness), .80 (future orientation), .88 (humane orientation), .67 (institutional collectivism), .77 (in-group collectivism), .66 (gender egalitarism), .80 (power distance), .88 (uncertainty avoidance). Average .77.
Srite and Karahanna, 2006	Masculinity/Femininity Individualism/Collectivism Power Distance Uncertainty Avoidance	Reliabilities: MS=.92, IC =.79; PD=.74; UA=.80

Source: Taras (2008)

According to Yoo et al. (2011), there are some limitations in the past research on the new cultural dimension measurement. First, a scale was typically developed to measure one cultural dimension. Little effort has been made to develop a scale that simultaneously embraces all five dimensions of Hofstede's model. For instance, individualism and collectivism dimension instrument developed by Triandis (1995), Markus and Kitayama (1994), Earley (1993), and Gaines et al. (1997); power distance by Brockner et al. (2001) and Earley and Erez (1997); individualism and risk linking by Chew (1996); masculinity-femininity by Spence and Helmreich (1978); masculinity/femininity, individualism/collectivism, power distance, and uncertainty avoidance by Srite and Karahanna (2006).

Second, certain new instruments tried to cover Hofstede's five cultural dimensions, but the reliability and validity are poor (Yoo et al., 2011). For example, Furrer et al. (2000) developed a set of 20 items to measure all the five dimensions. But psychometric properties of the scale were found to be very poor since it used Hofstede's survey items directly for individuals; the reliability of each dimension ranged from -.26 to .51 (Soares et al., 2007).

Third, some new instruments lost the original cultural dimensions proposed by Hofstede. The example was House et al.'s (2004) scale that measures Hofsede's culture at the individual level. The scale was psychometrically sound, establishing the validity, reliability, and cross-cultural measurement equivalence (Yoo et al., 2011). However, by re-conceptualizing Hofstede's culture as 9 dimensions of personal cultural orientations, the scale lost the original five dimensions of Hofstede.

CVSCALE is developed and validated later by Yoo and Donthu (1998, 2002), Yoo and Naveen (2005), 2011) and Yoo, Donthu, and Lenartowicz (2011). The scales has been used and generalized by scholars in many studies using student and non student samples in several countries (e.g., Australia, Brazil, China, Hong Kong (China), India, Netherlands, Poland South Korea, U.K., and U.S.). Yoo et al. (2011, p. 15) state that their scale will "make it possible to link individual attitudes and behaviors to individual-level cultural orientations because the data about cultural values, attitudes, and behaviors come from the same primary sources (individuals' survey responses), without using Hofstede's metric (secondary source)

and linking it to individual attitudes and behavior (primary data)". Given its high reliability and generalizability, CVSCALE will be used in our study to retest Hofstede's cultural values.

2.8 Cross-Cultural Research on Perceived Risk

2.8.1 Cultural Influence on Perceived Risk

According to Soares (2004), there is a long and rich history of cross-cultural research in international business. Because cultural values are central to the individual cognitive structure, they play key roles in determining consumer behavior (Steenkamp et al., 1999) and can shape people's perceptions and behaviors (Ueltschy et al., 2004). National culture has been found to influence human behavior and decision-making at the national and international level (Soares, 2004; Soares et al., 2007). Ko et al. (2004) also state that in international marketing, culture is considered one of the most influential factors that affect consumers' motives, attitudes toward preference, intentions, and purchase decision. Samiee (2001) even asserted, "the single most important factor that influences international marketing on the Internet is culture" (p. 297).

Soares (2004) states that the cross-cultural studies on consumer behavior have been conducted in many aspects: adoption of innovations, perceived risk and risk reduction strategies, family purchasing roles, attitudes toward foreign products, energy conservation, exploratory consumption, temporal consumption dimensions, involvement, means-end chains, penetration rates, and information search (e.g., Chadraba and Czepiec, 1988; Mitchell, Yamin and Pichene, 1996; Broderick et al., 1998; Steenkamp et al., 1999).

Given the rapid globalization of online shopping, understanding why perceived risk determinants related to online shopping vary from one culture to another is crucial. Cultural values provide a good theoretical basis for understanding perceived risk (Keh and Sun 2008) because culture not only effects how people respond to risk but also how they perceive and evaluate it (Choi and Geistfeld, 2004; Javenpaa and Tractinsky, 1999; Ueltschy et al., 2004).

In the last two decades, cross-cultural issues and risky decision-making behavior have respectively gained higher profiles in both marketing and psychology. Accroding to Soares (2004), Hofstede (1984) and Clark (1990) used relation to risk as a consumer dimension in their framework to assess national character.

2.8.2 Review of Previous Cross-cultural Perceived Risk Research and Research Limitations

Based on the literature review, we find that some studies investigated the presence of cross-cultural differences in risk perception (e.g., Brenot et al., 1998; Comegys et al., 2009; Erdem et al., 2004; Kailani and Kumar, 2011; Keh and Sun, 2008; Ko et al., 2010; Park and Jun, 2003; Poumadere, 1995; Ueltschy et al., 2004; Viklund, 2003; Weber and Hsee, 1998). The main findings, research context and cultural dimensions used in the research were presented in table 2.7. Based on previous studies, we find that the impact of culture on consumer perceived risk is a promising avenue for research and deserves more attention due to the limitations.

First, as seen in table 2.8, we find that all the previous studies on cross-cultural perception of risk have focused on examining differences of perceived risk between nations. None of them extended the research to the identification of cultural influence on perceived risk determinants. Given that understanding how to reduce consumer perceived risk as important as understanding consumer perceived risk, identifying perceived risk determinants and examining cultural differences on perceived risk determinants accordingly are relevance and important.

Second, most studies dealt with the cultural effect in a non-e-commerce context. Although few studies (e.g., Comegys et al., 2009; Erdem et al., 2004; Park and Jun, 2003) focus on the cultural influences on perceived risk in an e-commerce context, there are several limitations (i.e., lack of specified cultural dimensions, lack of strong cultural differences in the results, or/and lack of finding convergence).

A number of studies compared cross-national perceived risk differences based on Hofstede's (1991) national culture scores. Yet, cultural dimensions were not included in the research to explain why the consumers in these nations perceive different levels of risk. For instance, the first risk study to note significant differences in perceived consumer risk was the work of Hoover et al. (1978). The authors (1978) noted that given the same purchase setting, Mexican respondents perceived fewer consumers risk than did U.S. respondents because of their general cultural differences.

To overcome the simplistic nature of these studies, some research has tried to explain perceived risk differences by using the existing ratings of country-level cultural dimensions (Hofstede's cultural dimensions scores are cited most frequently in previous studies) as proxies for cultural dimensions rather than assessing. Prior studies (Ko et al., 2010; Weber and Hsee, 1998) suggest that cultural dimensions (i.e., individualism/collectivism and uncertainty avoidance) affect consumers' perceived risk in a across-national context. In addition, Brenot et al. (1998) argue that differing risk perceptions can be explained by cultural theory using hierarchy individualism, egalitarianism and fatalism and they then demonstrate differing risk perceptions among the French.

Among the major dimensions of cultural values, individualism/collectivism and uncertainty avoidance (Hofstede, 1991) were considered the most important cross-cultural perspective of perceived risk by researchers in searching for possible cultural explanations for differences in risk preference between countries.

Table 2.8. Synthesis of the Previous Studies on Cultural Effects on Perceived Risk

References	Nations chosen	Research context	Main findings	Cultural dimensions used in the research
Hoover et al. (1978)	the U.S. and Mexico	Offline Three products	Mexican respondents perceived less consumer risk than U.S. respondents, given the same purchase setting.	General comparison No specified dimensions
Poumadere (1995)	U.S. and Canada	Offline Hospital service	French respondents perceiving higher risks than the U.S. respondents given the same service setting; the U.S. respondents perceived the least risk overall, while the Canadian and U.K. respondents were similar to each other in their perceptions of risk.	General comparison No specified dimensions
Brenot et al. (1998)	Sub-cultures in France	Offline 20 social and environmental risk	Differing risk perceptions can be explained by cultural theory using hierarchy individualism, egalitarianism and fatalism and they then demonstrate differing risk perceptions among the French.	Hierarchy, egalitarianism, individualism, and fatalism.
Weber and Hsee (1998)	China, Germany, Poland and U.S.	Offline Financial investment options	The cross-cultural differences both in risk perceptions and risk preferences, concluding that cultural background was the biggest determinant of risk perception. Specifically, given the same options, the Chinese respondents perceived risk to be the lowest, U.S. respondents the highest and the Germans and Poles in between.	Collectivism - individualism
Park and Jun (2003)	Korea and U.S.	Online shopping	There were significant differences in Internet usage and the perceived risks in their study of the differences in internet usage, internet innovativeness, perceived risks of Internet purchase, and Internet purchase behavior between Korea and America.	General comparison No specified dimensions
Viklund (2003)	Western Europe	Nuclear power	The most trusting respondents in France and Spain perceived higher risk than the least trusting respondents in Sweden. Respondents from the U.K. perceived greater risks than did those of Sweden, but perceived less risk than those respondents from Spain and France.	General comparison No specified dimensions

Table 2.8. Synthesis of the Previous Studies on Cultural Effects on Perceived Risk (continued)

References	Nations chosen	Research context	Main findings	Cultural dimensions used in the research
Erdem et al. (2004)	U.S. and U.K.	Online shopping	Online shopping risk is perceived significantly differently even across the similar cultures by finding that U.S. respondents were more risk averse than respondents in the U.K.	General comparison No specified dimensions
Lim et al. (2004)	U.K. and Hongkong	Online shopping	Internet shopping is jointly affected by a set of contextual factors (such as national income and educational level) as well as two major cultural factors. Among the cultural dimensions proposed in Hofstede's framework, uncertainty avoidance and individualism-collectivism are most relevant to Internet shopping because of their link to the willingness to accept the potential risks of Internet shopping and to trust unknown online vendors.	Collectivism - individualism, Uncertainty avoidance
Oltedal et al. (2004)	Review		Evaluate the relevance of this theory in risk perception research.	Individualistic, egalitarian, hierarchical, and fatalistic
Ueltschy et al. (2004)	U.S., Canada and U.K.	Offline shopping	There were statistically significant differences in perceived risk across national cultures relative to the purchase of clothing and computers, but not in relation to the purchase of airline tickets.	Language Uncertainty avoidance
Urban and Scasny (2007)	Czech Republic	Work-related fatal risks	The two variables of cultural theory indicating fatalism and egalitarianism were not statistically significantly related to risk perception bias in models that the authors have estimated.	Fatalism and egalitarianism
Keh and Sun (2008)	China and Singapore	Offline Insurance market	In insurance market, two cultural dimensions and two individual contextual factors exert differential effects on consumer perceived risk in the two countries.	Self-transcendence/self-enhancement versus conservation/openness to change

Table 2.8. Synthesis of the Previous Studies on Cultural Effects on Perceived Risk (continued)

References	Nations chosen	Research context	Main findings	Cultural dimensions used in the research
Comegys et al. (2009)	United States and Finland	Online shopping	In the United States respondents with higher levels of trust towards online shopping tended to buy more, although no relationship between the amount of consumer online risk-taking and online purchase volume was uncovered in either country, furthermore, in Finland people with little trust towards e-vendors actually reduced their e-shopping over time.	General comparison No specified dimensions
Ko et al. (2010)	Korea and U.S.	Online shopping	Both Korean and US Internet users have a similar aggregated degree of perceived risk toward online shopping, though there are significant relative differences in specific risk items (i.e., social, financial, time, and psychological risk), which reflect the existence of the cultural differences in response to the specific risk factors.	Uncertainty avoidance
Kailani and Kumar (2011)	U.S., Jordan, and India	Online shopping	In cultures where uncertainty avoidance is high, perceived risk with internet, buying is also high, and this impacts internet buying negatively.	Uncertainty avoidance

Pavlou and Chai (2002) conduct an empirical study to explain e-commerce adoption in different cultures using data from consumers in the United States and in China, incorporating three of Hofstede's five cultural dimensions (individualism/collectivism, power distance, and long-term orientation) along with the theory of planned behavior. The author concludes that cultural differences play a significant role in consumers' e-commerce adoption behaviors. Another study carried out by Lim et al. (2004) identifies individualism/collectivism and uncertainty avoidance as two national culture dimensions and explores their interaction and influence on Internet shopping rates in different countries. They find that uncertainty avoidance and individualism-collectivism are most relevant to Internet shopping because they are linked to a willingness to accept potential risks inherent to Internet shopping and to trust unknown online vendors.

The findings of these studies conducted to investigate the influence of these two cultural dimensions on perceived risk were not, however, convergent and were even, in some cases, contrary.

Individualism/collectivism is one of the main cultural streams used to explain perceived risk differences. Weber and Hsee's (1998) and Hsee and Weber's (1999) cushion hypothesis predicted that a culture's position on the individualism-collectivism continuum will affect the objective risk to which members of that culture are exposed (because collectivism cushions in-group members against the consequences of negative outcomes), and thus should, quite accurately, affect their subjective perceptions of the riskiness of risky options. The rank order in degree of country collectivism of the four cultures precisely predicted the rank order in the magnitude of risk perceived by different nationalities to be inherent in risky financial options (Weber and Hsee 1998).

According to the authors, collectivism cushions in-group members against the consequences of negative outcomes, and thus affects their subjective perceptions of the riskiness of risky options. Their proposal was consistent with Bontempo et al. (1997). They observed cross-cultural differences in the perception of the riskiness of financial gambles, comparing students and security analysts from the U.S.A., the Netherlands, Hong Kong, and Taiwan. In their study, risk perception among respondents with Chinese cultural roots (Taiwan and Hong Kong) was different from that of respondents from the two Western countries.

In contrary, other studies (e.g., Li and Fang, 2004) stated that it is indeed contrary to typical expectations, even within the Chinese and Americans who were tested by these authors. They argued that there is no convincing evidence provided for the cushion hypothesis and collectivism-individualism, that is, the ‘collectivism’ and ‘cushion’ variables failed to achieve statistical significance in predicting risk perception. They found that risk perception in the friend/family scenario may not rely on the financial helps against possible losses but rather on the non-financial helps leading to gains (e.g., hi-tech support, business experience and market forecasting).

Moreover, in both “family” and “friend” scenarios, the person with big family or big social circle of friends is perceived by the subjects as more likely to take risk as well as not to take risk. This suggests that people in collectivist cultures might see social networks from more than one perspective. That is in collectivist cultures it means I am not a burden on the ingroup; in individualist cultures it means I can do my own thing" (Triandis et al., p. 1007).

Moreover, Mandel’s (2003) findings are consistent with the reports of Li and Fang (2004) and Triandis et al. (1990). Mandel (2003) investigate whether individuals had different tolerances for risk in different situations, depending on which self was salient. This idea was examined in the context of risky choices in two different risk domains, social and financial. When the interdependent self is activated, thoughts of friends and family members are brought to the forefront, and although these friends and family members might offer a cushion that lessens the effect of a financial loss, they also magnify the embarrassment of a social misstep. Therefore, individuals whose interdependent selves were activated, when compared to those whose independent selves were activated, were willing to take more financial risks and fewer social risks.

As such, the cushion hypothesis, which is limited to a pure loss situation where only the exploitation of the social networks is considered, will inevitably engender difficulty in enabling its effect to be interpreted unambiguously when applied to more general real-world decisions.

Third, another limitation is that the literature existing on risk dimensions in a cross-cultural context (Eastern Versus Western culture) focus on the dimension of financial risk and social

risk, little research studies the cross-cultural differences on the other dimensions, such as psychological risk, privacy risk, time risk, performance risk, delivery risk and physical risk. The recent study will compare the perceived risk differences between China and France on these risk dimensions.

Fourth, most of previous cross-cultural perceived risk studies are based on Hofstede's national cultural dimensions. The researchers agree that national cultures endure over time and they are still valid as collective identities (Hofstede 1991) and ignore the culture change. Given the rapid pace of globalization, turbulent economic and political changes, and the dominance of multinational corporations, values of global culture - such as a free market economy, democracy and freedom of choice, individual rights, acceptance and tolerance of diversity, and openness to change - are steadily sweeping global markets (Agarwal et al., 2010). The previous research used Hofstede's work without retesting the cultural values.

Last but not least, Sinkovics et al. (2007) also note that yet another limitation is that extant literature focuses heavily on the U.S. culture. Moreover, we witness methodological weaknesses such as relatively small sample sizes (Fink and Laupase, 2000; Singh and Baack, 2004; Singh et al., 2004; Singh et al., 2003) and a somewhat limited depth of cultural analysis (Okazaki and Rivas, 2002).

2.8.3 Cross-Cultural Influence on Perceived Risk Determinants

McAllister (1995) proposed two different categories of determinants in the term of trust – affect-based determinants and cognition-based determinants. According to the author, affect orientation (such as, citizenship behavior and interaction frequency) is built on the emotional bonds between partners, whereas cognition-based orientation is built on the knowledge of role performance (such as, peer reliable role performance, cultural-ethnic similarity, and professional credentials). Based on the contrasting role of affect-based versus cognition-based in the two different cultures, Chen et al. (1998) propose that affect orientation is more

positively related to cooperation in a collectivist culture. Later Kim (2008) adopted these two categories to his trust determinant model in the two different cultures. The author developed two-group determinants of trust – transference-based (such as, third-party seal and e-store's reputation) and self-perception-based (such as, security protection, privacy concern).

People in an individualistic culture (i.e., France) are more likely to seek information by themselves from direct and formal sources. They are somewhat separate from their social context (Kim, 2008). Therefore, cognition-based perceived risk determinants, which are mainly related to consumer self-cognitive reasoning based on self-perception and self-interest through direct experiences and interactions with an e-retailer (i.e., security, and privacy protection policies, etc.), are more valued in the French culture than in the Chinese culture. Similarly, members of a collectivist culture (i.e., China) are more likely to share their opinions and attitudes (Kim, 2008). Therefore, affect-based PR determinants such as e-retailers' reputation are more valued in collectivist cultures.

2.9 Summary

This chapter gave a critical overview of the theoretical background of this thesis. Our research is based on the theory of Reasoned Action (Fishbein and Ajzen, 1975), the theory of Planned Behavior (Ajzen, 1985), the Technology Acceptance Model (Davis, 1989) and its modifications, Post-acceptance Model of IS Continuance and the Valence Framework). By reviewing the concept of perceived risk, we found that perceived risk is a powerful factor at explaining consumer online purchase behavior, and the concept of perceived risk in Internet context needs more attention. More precisely, more research is required to identify the dimensions of perceived risk in terms of internet shopping environment and particular product categories (such as clothing product), as well as the method to measure perceived risk.

Furthermore, although some researchers tried to categorize the determinants of perceived risk in commerce, the findings are limited and deserve more attention. A semi-structured in-depth interview will be described in chapter 4 to understand French and Chinese consumer perceived risk and identify the determinants of perceived risk.

Finally, we reviewed several cultural models and found that the dimensions of the models largely overlap. Schwartz's (1999) cultural dimension self-transcendence versus self-enhancement; Hall's (1973) High-context communication fits the collectivist society, and low-context; Trompenaars's (1993) individualism versus collectivism; Clark's (1990) culture dimensions overlaps Hofstede's (1984; 1991; 2001) culture model; and Douglas's (1966; 1978) individualist is similar to Hofstede's (1998; 2001) individualism/collectivism.

Then the impact of culture on perceived risk was discussed in this chapter. By reviewing previous cross-cultural studies, we found there are some limitations. First, we found that all of previous studies on cross-cultural perceived risk focused on examining the differences of perceived risk among nations. None of them extended the research to the identification of cultural influence on perceived risk determinants. Second, most studies dealt with the cultural effect in a non-e-commerce context. Third, another limitation is that the literature existing on

risk dimensions in a cross-cultural context (Eastern Versus Western culture) focus on the dimension of financial risk and social risk, little research studies the cross-cultural differences on the other dimensions, such as psychological risk, privacy risk, time risk, performance risk, delivery risk and physical risk. Fourth, most of previous cross-cultural perceived risk studies are based on Hofstede's national cultural dimensions. The researchers agree that national cultures endure over time and they are still valid as collective identities (Hofstede 1991) and ignore the culture change. Finally, another further limitation is that extant literature focuses heavily on U.S. culture. These limitations in previous studies guide our research directions.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Overview

Methodology, which focuses on how we obtain knowledge about the world, is the building blocks of empirical studies (Soares, 2004). This chapter is organized as follows: first, the paradigm used to structure and organizes the research, will be discussed. Then qualitative and quantitative research methods are presented and compared. Besides, this chapter highlights the cross-cultural issues, especially the problem of comparability.

It is should note that in this chapter cross-cultural research and the methodological questions involved in conducting cross-cultural research as the important part will be presented and discussed. As indicated by Soares (2004), conducting research in an international setting is much more complex than domestic research (Boyacigiller and Adler, 1991; Malhotra, 1999; Craig and Douglas, 2001). Accordingly, we focus on the equivalence issue. According to Craig and Douglas (2005), to ensure equivalence in the conceptual model adopted, attention needs to be paid to construct equivalence to ensure that the constructs being studies are equivalent in all contexts and cultural settings, as well as measure equivalence, that operational measures are equivalent in all research settings. In addition, data need to be ensure comparable and equally reliable in all contexts studied in data collection procedures. We discussed these types of equivalence in the followings sections.

Then, research credibility, sampling techniques, product selection will be discussed. This is followed by illustrating the suggested research framework, including research phases and process, with a discussion of data gathering instruments and analysis techniques used in each phase.

3.2 Post-Positivist Research Approach

Paradigm is defined as the set of beliefs, values and thoughts that affect the way that researchers perceive the reality and respond to that perception (Kuhn, 1970). Denzin (2000, in Refaat El Said, 2005, p. 61) considers paradigms as "theories about how the world works, what the character of humankind is and what it is feasible to know and not know". According to Guba (1990)[9], paradigms can be characterized through their: *ontology (What is reality?)*, *epistemology (How do you know something?)* and *methodology (How do go about finding out?)*. These characteristics create a view of how we view knowledge, in other words, how we see ourselves in relation to this knowledge and the methodological strategies we use to discover the knowledge.

In social science, there are four types of paradigms used to structure and organize research. They are positivism (e.g. experimental testing) [10], post-positivism (i.e. a view that we need context and that context free experimental design is insufficient), critical theory (e.g. ideas in relation to an ideology - knowledge is not value free and bias should be articulated) and constructivism or interpretivism (i.e. each individual constructs his/her own reality so there are multiple interpretations. This is sometimes referred to as interpretivism) (Guba and Lincoln, 1994).

Among these four paradigms, positivism and interpretivism represent two opposing groups of beliefs about how valid knowledge may be generated (Denzin, 2000). "Positivism assumes that an objective world exists and that scientific methods can mirror and measure while seeking to predict and explain causal relations among variables" (Swanson and Holton III, 1997, p. 18). However, positivism is criticized for "removing meaning from contexts in the pursuit of quantifying phenomena" (Guba and Lincoln, 1994, cited by Swanson and Holton III, 1997, p. 19).

[9] The souce is from the online courses in paradigms at University of Southampton. http://www.erm.ecs.soton.ac.uk/module/index.htm
[10] The souce is from the online courses in paradigms at University of Southampton. http://www.erm.ecs.soton.ac.uk/module/index.htm

For interpretivism, this view "investigates how the objective features of society (e.g., organizations, social classes, technology, and scientific facts) emerge from, depend on, and are constituted by subjective meanings of individuals and inter-subjective processes such as discourses or discussions in groups" (Gephart, 1993; 1999, cited by Swanson and Holton III, p. 21). However, interpretivism is criticized that "what can be discovered in the interpretivist approach are not generalizations to larger population but contextual findings" (Winfield, 1990, in Refaat El Said, 2005, p. 63).

In contrast to positivism, post-positivist approach positioned between positivism and interpretivism was introduced as an amendment to positivism, rejects the idea that individuals see the world perfectly as it really is which the guiding belief of positivism (Lincoln and Guba, 2000). Post-positivists believe that "reality exists but only imperfectly and probabilistically" (Robson and Colin, 2002, p. 624), as the observer is biased and all observation can be affected to achieve objectivity (Hirschheim, 1992). Many researchers support a paradigm shift "from positivism's objectivist assumption, to post-positivism's critical realism, which grants that the reality cannot be perfectly understood" (Winfield, 1990, in Refaat El Said, 2005, p. 63).

We used post-positivism in the recent study for two reasons. Firstly, according to Refaat El Said (2005), some researchers (Kuhn, 1996; Winfield, 1990) support that the goal of post-positivist matches with that of information system research. More precisely, we believe that one may never be able to attain the reality. Furthermore, post-positivism is continuously gaining ground in the field of IS research as an appropriate methodological approach (Refaat El Said, 2005).

Secondly, post-positivism believes that there is no single correct method in social science but multiple measures and observations, which might include both qualitative and quantitative techniques (Hirschheim, 1992, in Refaat El Said, 2005). This research intends to investigate the effect of culture on consumer perceived risk by testing a causal relationship. As discussed in chapter 2 Literature Review, little research has yet identified the determinants of perceived risk. Therefore, an in-depth understanding of the phenomenon is needed to generate the hypotheses. A hybrid technique for inquiry that combines both quantitative and qualitative techniques is suggested. Having discussed the reasons for selecting the post-positivist

research approach, the methodology and research design are described in the following section.

3.3 Methodology for the Current Research

3.3.1 Methodological Process in Current Research

The research process used in the recent study is inspired by Giddens' (1984) levels of understanding based on the research objectives. Refaat El Said (2005) has adopted Giddens' research philosophy from exploratory phase to confirmatory phase in his information system research on the effect of culture on consumer online shopping behavior. According to Refaat El Said (2005), Krathwohl (1997) supported that the exploratory approach allows researchers to understand the components of the phenomenon and the interaction within these components. Furthermore, Straub and Carlson (1989, in Refaat El Said, 2005) suggest that a typical IS research cycle starts with an exploratory phase which is followed by a confirmatory phase.

The following two methodological steps are suggested in the studying of the phenomena under investigation (Refaat El Said, 2005, p. 9):

Exploratory Phase:

1. ***Investigation process***
   The researcher seeks a subjective understanding of the phenomenon under investigation. This phase aims to explore the phenomenon and generate research constructs through elicitation of the perception of human participants' understanding of the phenomenon.

2. ***Model designing process***
   The researcher seeks an interpretivist understanding based on interpretation of the

participants' understanding. This leads the researcher, with knowledge gained from literature, to generate relationship between research constructs and build the research hypothetical model.

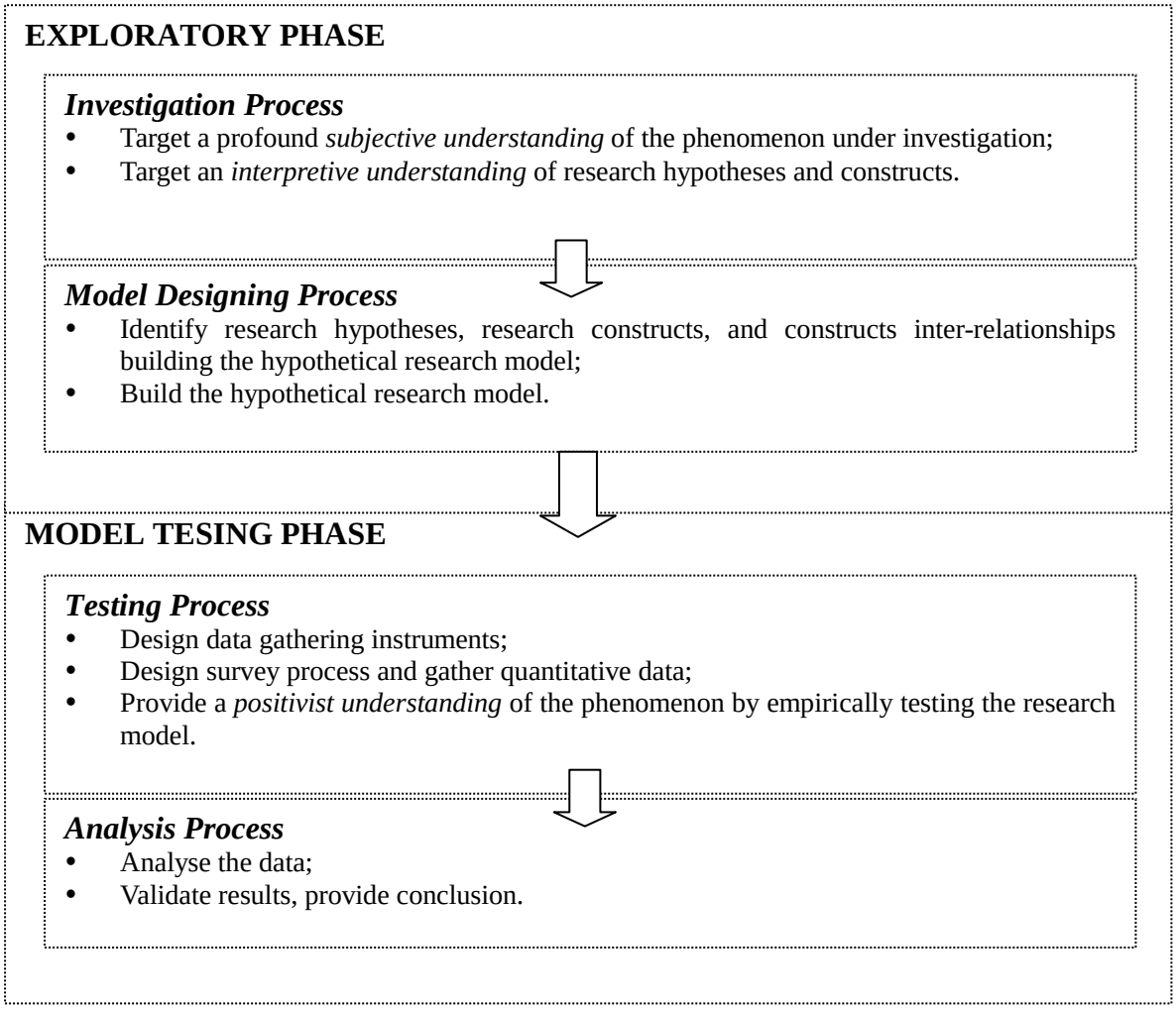
Model Testing Phase:

In this phase, testing of the research hypotheses is conducted by applying empirical assessment for confirming the hypothetical model. Then an analysis process follows.

Since there have not been sufficient findings linking antecedents to perceived risk, especially for the culture considered in this research, the need to start with an interpretivist understanding of the problematic is important in the current study. Figure 3.1 illustrates the research framework suggested in this study and the methodological process.

After setting the research paradigm and methodological process, data gathering techniques were then discussed. The following section focused on the two main different approaches in technical research methodology, that is, the quantitative and qualitative research approaches. The paragraphs discussed the relevance of these approaches to the current research, and set the suitable techniques for the research.

Figure 3.1. Research Framework and Research Methodological Process



Source: Refaat El Said (2005)

3.3.2 Qualitative Versus Quantitative Research Approach

Quantitative (refers to "quantitatively professing an objective truth and a single reality") and qualitative (refers to "qualitatively promoting a subjective truth and multiple realities") research approaches are the two sides of the methods of inquiry continuum (Castellan, 2010). According to Castellan (2010, p. 2), there are three perspectives as to how these two different

approaches are viewed and conducted. The first is “or”, the second is “either/or” and the third is “both”.

In qualitative research, the researcher identifies with postpositivism which offers “that social reality is constructed and it is constructed differently by different individuals” (Gall et al., 1996, p.19, cited by Castellan, 2010, p. 6). According to Castellan (2010), qualitative approach focus on how individuals perceive their world; these qualitative researchers interact with that which is being researched. Qualitative approach uses an inductive approach through close observation, in-depth interview, or focus group (Rubin and Rubin, 1995, in Refaat El Said, 2005). However, qualitative approach is criticized for its contextual findings and the problem of generalization of the results (Krathwohl, 1997).

On the other hand, quantitative researchers are concerned with an objective reality that is “out there to be discovered and the researcher is independent of that which is being researched” (Castellan, 2010, p. 6). Quantitative methods typically use a deductive approach where the explanation guides the development; they concentrate mainly on the statistical significance of the results, generated from empirical tests (Maykut and Morehouse, 1998). However, quantitative approach has been criticized because they routinely reduce complex information to summary measures, often ignoring the details and richness of individual behavior and what is difficult to quantify (Refaat El Said, 2005).

As indicated by Castellan (2010), some researchers (Firestone, 1987; Hoepfl, 1997; Neill, 2007) suggested that it is not necessary to pit one approach against the other. A hybrid model including both approaches in one study could enhance and complementing the other in knowledge gained on the same research problem, while each remains true to its own identity (Castellan, 2010).

Besides, according to Refaat El Said (2005), in the strand of information systems research, the choice of multiple research techniques is supported by various researchers (Galliers, 1992; Winfield, 1990; Straub and Carlson, 1989). For example, Galliers (1992, p. 148) states the field of information systems is essentially a pluralistic scientific field that “can best be understood and analyzed only with the help of pluralistic models”.

Furthermore, researchers should be careful when interpreting answers to questionnaires in cross-cultural studies. Conducting interviews allows researchers to gain additional insight in the topic and to interpret the data from the questionnaire more accurately. Such a multi-method approach, including interviews and a questionnaire, is advisable in studies involving culture (Leung et al. 2005; Yaprak 2008).

Moreover, Scroggins et al. (2010) suggest that international cross-cultural research should include both qualitative and quantitative methods and more complex analytical and statistical techniques to establish cultural construct equivalency. Emic approaches to cross-cultural construct measurement are suggested (Scroggins et al., 2010). According to Scroggins et al. (2010), researchers should start with qualitative methodology such as, semi-structured in-depth interview, to gain an understanding of the nature of the construct of interest in each of the cultures in which research will be conducted.

Quantitative methods such as confirmatory factor analysis and structural equation modeling are then suggested to be employed to examine the nature and structure of the construct in each culture (Scroggins et al., 2010). The combined qualitative and quantitative approach reflects an emic approach to scale development and increases the likelihood that the constructs are valid for each country (Scroggins et al. 2010).

On the basis of the discussion above, a hybrid approach that combines both quantitative and qualitative approaches is selected in the recent research.

3.4 Comparability Regarding Cross-cultural Research

Cross-cultural research is not an easy task (Cavusgil and Das, 1997). Compared to domestic research, in cross-national research the researcher must overcome many additional factors not inherent in typical research tasks. Cross-cultural Marketing research presents enhanced and specific methodological problems, stemming mostly from research design and implementation issues (Craig and Douglas, 2000). Sekaran (1983) considered that these

methodological concerns could be categorized under five groups: ensuring functional equivalence, problems of instrumentation, data-collection methods, and sampling design issues.

According to Craig and Douglas (2005), once the unit of analysis and the research design has been determined, the next step is to establish the comparability of the constructs as well as measures of these constructs. A number of different types of comparability or equivalence need to be examined. These include "the functional, conceptual and category equivalence of constructs, the linguistic and metric equivalence of the measurement instruments, and the equivalence of data collection and survey administration procedures" (Craig and Douglas, 2005, p. 179). Hofstede suggests that there are three core questions that have to be addressed in cross-cultural research: "What are we comparing? Are nations suitable units for this comparison? Are the phenomena we look at functionally equivalent?'' (Dickson et al., 2003, p. 732).

3.4.1 Cultural Comparaison Approches: Emic Versus Etic

Graen et al. (1997) note that cross-cultural research is essentially focused on comparability, and that etics and emics are the focus. Therefore, one task of cross-cultural researchers is to identify emics and etics.

3.4.1.1 Emic vs Etic Approaches

Two alternative approaches - the 'emic' and the 'etic' - have typically dominated cross-cultural research in the social sciences (Craig and Douglas, 2005). The etic approach is "primarily concerned with identifying and assessing universal attitudinal and behavioral concepts and developing pan-cultural or 'culture-free' measures" (Craig and Douglas, 2005,

p. 181). The emic perspective, on the other hand, presupposes that cultures can be described but not compared. These two approaches represent "two polar extremes on the continuum of cross-national research methodology", that is, "the one emphasizing cultural uniqueness, the other pan-culturalism in behavioral patterns, and the underlying processes" (Craig and Douglas, 2005, p. 181).

3.4.1.2 The Linked Emic Model

"To incorporate culture-specific elements and effectively build a broader knowledge base, a hybrid or linked emic model is suggested (Craig and Douglas, 2005, p. 186). According to Craig and Douglas (2005), emic research starts initially in multiple sites. More precisely, the researchers begin by agreeing on the scope or common parameters of the research and the key research questions. This first step may cause some difficulty as each researcher may view the key research questions differently. Particularly problematic may be definitions or understanding of the meaning of terms.

After the key research questions have been investigated, each researcher draws up a research design (Craig and Douglas, 2005). According to Craig and Douglas (2005), differences and similarities in these localized models are discussed by researchers from different contexts and the role of contextual factors associated with these similarities and differences are also discussed. "This may be achieved by including elements unique to one context in other contexts, or by combining constructs from different contexts so as to develop multifaceted constructs that are then applied to all contexts" (Craig and Douglas, 2005, p. 187). A "supra" model may then be developed by incorporating all the elements from the local "context-specific" models and combining both etic and emic elements (Craig and Douglas, 2005, p. 187).

In conclusion, a key issue is how to effectively combine and coordinate activities of researchers at multiple local sites often with different perspectives. This approach can avoid "potential ethnocentric or pseudo-etic bias insofar as researchers from each local context is

responsible for building the research design and interpreting findings from each local context" (Craig and Douglas, 2005, p. 188). In addition, according to Craig and Douglas (2005), coordination and integration of findings across research contexts are conducted by a multicultural team of researchers from different backgrounds may facilitate the coordination at subsequent phases of research.

3.4.2 Establishing Data Equivalence

Equivalence is a important issue at the cross-cultural research design stage (Soares, 2004). It is known that cross-cultural management research presents numerous challenges and difficulties, of which is the issue of cultural construct equivalency. Given the importance of generating data that are comparable from one country to another, equivalence needs to be carefully monitored at all stages of the research design (Craig and Douglas, 2005). According to Craig and Douglas (2005), to ensure equivalence in the conceptual model adopted, attention needs to be paid to construct equivalence to ensure that the constructs being studies are equivalent in all contexts and cultural settings, as well as measure equivalence, that operational measures are equivalent in all research settings. In addition, data need to be ensure comparable and equally reliable in all contexts studied in data collection procedures. We discussed these types of equivalence in the followings sections.

3.4.2.1 Construct Equivalence

According to Craig and Douglas (2005), examination of construct equivalence requires examination of three distinct aspects. If the nature of a construct varies across cultures, then it is questionable as to whether a measure of that construct developed in one culture is a construct valid measure of the same construct in a different culture (Craig and Douglas, 2005). Thus, cross-cultural researchers must pay attention to conceptual and functional

construct equivalency when measuring constructs in a cross-cultural context (Scroggins et al. 2010). According to Craig and Douglas (2005), the researcher must firstly assess whether a given concept serves the same function from country to country (i.e., functional equivalence). Second, the researcher must determine whether the same concepts occur in different countries and whether the way in which they are expressed is similar (i.e., conceptual equivalence). Finally, where the concept belongs to a specific class of objects or activities, the researcher must examine whether the same classification scheme of objects can be used across countries (i.e., category equivalence).

Functional Equivalence

In examining construct equivalence, "a first issue to consider is that the concepts, objects or behaviors studied may not necessarily be functionally equivalent; that is, they may not have the same role or function in all countries studied" (Craig and Douglas, 2005, p. 188). Functional equivalence concerns whether the concept or behavior serve the same role in the cultures studied (Soares, 2004). The bicycle illustration provided by Craig and Douglas (2005) is a good example of how a construct can lack functional equivalency across cultures. According to the authors (2005), a bicycle is used recreationally in U.S.. In Netherlands or in China, however, the bicycle is used as a major source of transportation. The bicycle has a different function or purpose in the two cultures. Therefore, the bicycle is likely understood differently in the two cultures due to its different functions (Scroggins et al., 2010).

Conceptual Equivalence

Conceptual equivalence refers to whether the concept is expressed in similar attitudes or behaviors across cultures. Conceptual equivalence is concerned with the "interpretation that individuals place on objects, stimuli or behavior, and whether these exist or are expressed in similar ways in different countries and cultures" (Craig and Douglas, 2000, p. 158). For example 'saving face' is prevalent in Chinese society (Craig and Douglas, 2000).

Therefore, in order to ensure construct equivalence, the selection of the concepts employed in this research was based on their applicability in China and France. Regarding the concept of perceived risk, construct equivalence has been well developed in previous studies in some

countries, especially in US. The questions used in the study of perceived risk in U.S. were adopted with modification to the study in China and France.

3.4.2.2 Measurement Equivalence

Measurement equivalence has to be determined in terms of the "units of measurement used, as well as in the translation of verbal and nonverbal instruments to ensure comprehension by respondents in different socio-cultural environments" (Craig and Douglas, 2000, p. 20).

According to Steenkamp and Baumgartner (1998, in Keh and Sun, 2008), measurement equivalence refers to whether the measurement operations yield measures of the same attribute in different countries. If we cannot make sure that the measurement instruments are cross-nationally invariant, the conclusions reached would be incorrect (Keh and Sun, 2008). To make valid cross-cultural comparisons, it is necessary to establish calibration, translation and metric equivalence (Craig and Douglas, 2000).

Translation Equivalence

The translation equivalence requires attention to ensure the instrument understood by respondents in different countries and avoid problems of miscommunication (Craig and Douglas, 2005).

According to Craig and Douglas (2005), translation equivalence is a central issue in the establishment of construct equivalence, since "this is the stage in the research design at which the construct is defined in operational terms. The translation procedure thus frequently helps to pinpoint problems with regard to whether a concept can be measured by using the same or similar questions in each cultural context, and whether a question has the same meaning in different research contexts" (p. 192). "Language is the vehicle of most of cross-cultural research and part of its object" (Hofstede, 2001, p. 21).

However, language is not neutral. For example, according to Sullivan and Cottone (2010), Widenfelt et al. (2005) examined the problematic of the term self-esteem, and they concluded that this used concept in the West is not easily translated or explained in a variety of languages and cultures, particularly Asian cultures. Another example is the way in which the color spectrum is divided. Several languages have no separate words for blue and green (Hofstede, 2001).

"Where exact translation equivalents do not exist, 'contextual transpositions' (Gasse, 1973) must be found; apparent equivalents sometimes do not express the meaning intended by the researcher" (Hofestede, 2001, p. 21). The translation and back-translation method is usully used by the researchers to make sure the equivalence of instruments (Scroggins et al., 2010). "Few cross-cultural studies can escape the need for the translation of research instruments such as questionnaires and the back-translation of responses and analytic conclusions" (Hofstede, 2001, p. 22). As indicated by Hofstede (2001), the translation is not an easy task, and the wider apart the structures of the two languages, the less simple the task, for instance, Chinese and French. In addition, translators should be familiar not only with both languages but with the context of the material to be translated. According to Soares (2004), the original instrument is suggested to be translated to the target by a bilingual speaker, familiar with the cultures involved. The questionnaire then will be back translated by a different bilingual speaker. After that, both versions are compared and modifications are made. Then another round of translation and back-translation are processed until a final version is agreed on (Soares, 2004).

Metric Equivalence

In addition to translation equivalence, another concern is metric equivalence of the measurement instrument (Craig and Douglas, 2005). According to Craig and Douglas (2005, p. 193), "the greater the emphasis placed on quantitative measurement in data interpretation, the more important the establishment of metric equivalence becomes". In addition, when attitudinal scaling or multivariate procedures are used in the research, the metric equivalence should be paid more attention.

Metric equivalence examines “the equivalence of the scale or scoring procedure used to establish the measure” and “the equivalence of response to a given measure in different countries” (Craig and Douglas 2005, p. 193). In other words, metric equivalence in scale and scoring procedures concerns the different effect of the different scales or scoring procedures in different cultures (Craig and Douglas, 2005). For instance, in English-speaking countries use of a five-or seven-point scale is common, whereas in other countries twenty-point or ten-point scale are more common (Douglas and LeMaire, 1974).

The other aspect of metric equivalence concerns whether a score obtained in one research context has the same meaning in another context (Craig and Douglas, 2005). Craig and Douglas (2005) clarified this concern by giving an example on an intentions-to-purchase scale, indicate a similar likelihood of purchase from one country to another. In Middle Eastern countries, respondents tend to give significantly higher scores.

Given that metric equivalence can only be examined once the data have been collected, the researchers need to get some messages from past experience or similar types of measures in the relevant culture (Craig and Douglas, 2005).

3.5 Research Credibility

A common concern about the research is its credibility. There are three aspects of credibility: the validity, the reliability of the research findings, as well as the capability of generalization (Refaat El Said, 2005). The following paragraphs were used to discuss these three aspects in detail.

3.5.1 Construct Validity

As indicated by Soares (2004), construct validity is defined as the extent to which differences in scale scores represent true differences of the measured characteristics. According to Craig and Douglas (2005), construct validity, measured usually with multi-items, can be established

in three ways: (1) convergent validity, (2) discriminant validity, and (3) nomological validity. The definition and the measuring method of these three aspects of validity are presented in the following table 3.1 based on Craig and Douglas (2005).

All the measures employed in this study are drawn from the literature and already validated in previous studies. The validity of the measurement instrument used in the research is going to be verified in the chapter 6 and 7.

Table 3.1. The Definitions and Measuring Methods of Convergent Validity, Discriminant Validity, and Nomological Validity

Validity aspect	Definitions (the three aspects of validity has to answer the following questions)	Measuring method	Measuring instrument
Convergent validity	Are the same results obtained when the construct is measured in two different ways? In international marketing research this also involves measuring the construct two different ways in two or more countries.	The correlation between the two measures is examined. If the correlations obtained in two different countries are significantly different form zero and significantly form each other, then the degree of convergent validity in the country with the lower correlation is suspect.	Confirmatory factor analysis and structural equation modeling
Discriminant validity	Does a specific concept differ from other concepts?	The correlation between two different concepts should not be significant. In international marketing research, the correlations should not be significant in all the countries in which the constructs are measured.	Confirmatory factor analysis and structural equation modeling
Nomological validity	Is the construct related to some external criterion?	In multi-country research, one issue that becomes problematic is whether the same external criteria are available in the other country. On a more subtle level is the issue of whether a criterion has the same meaning in both countries.	

Source: Craig and Douglas (2005)

3.5.2 Reliability

According to (Cochen et al., 2007, p. 146), “for research to be reliable it must demonstrate that if it was to be carried out on a similar group of respondents in a similar context, then similar results would be found”. In cross-cultural research there are a number of ways in which reliability can be examined (Craig and Douglas, 2005): (1) consistency over time; (2) consistency across individuals; and (3) internal consistency of scales.

3.5.2.1 Consistency over Time

Test-retest reliability is used to assess whether results obtained from administration of a measure on two separate occasions are comparable (Craig and Douglas, 2005). The method to test the consistency over time is that a questionnaire will be administered initially, and then the second round of test is carried out two to five weeks later. A high correlation between scores obtained on the two occasions suggests that the same underlying element is being measured on both occasions (Craig and Douglas, 2005).

3.5.2.2 Consistency across Individuals

Consistency across individuals pertains to whether the individuals evaluate items in the same way at the initial stages of scale construction (Craig and Douglas, 2005). However, although examination of reliability based on the first two criteria is preferable in cross-cultural research, substantially increase costs, as well as increasing the burden of data collection and incurring delays in data processing. Therefore, most attention focuses on internal measures of reliability.

3.5.2.3 Internal Consistent

The internal consistency of scales is typically assessed using Cronbach's α coefficients. Exploratory factor analysis of a large set of variables is commonly used in the scale development process and the coefficient α for the resulting group of variables is calculated. Internal consistency can also be assessed using a split-half approach, especially used in case of lengthy scales (Soares, 2004).

Internal reliability scores can be influenced by a number of factors: (1) demographic and background characteristics; (2) self-reports of behavior in the form of ratings of involvement in household tasks and decisions; and (3) lifestyle or psychographic variables (Craig and Douglas, 2005).

3.6 Sampling Techniques

According to Refaat El Said (2005), sampling technique is another research concern, which refers to how research is built up on a subset of population, and how the population used in the study is represented. Since it is impossible to reach an entire population, research is based on samples. To avoid alternative explanations of differences in results, the researcher should select samples in each nation that are as closely comparable as possible (Soares, 2004). In the case of cross-cultural studies, sample is more difficult to be defined with the consideration of comparability and representativity (Craig and Douglas 2005). It is important to balance comparability with representativity in samples.

However, it is not easy to select a representative and comparative national samples (Soares, 2004). Hofstede (2001) pointed out that modern nations are too complex and sub-culturally heterogeneity for their cultures exists. Thus, matched samples seem to be the more appropriate techniques in the nationwide cross-cultural studies (Hofstede, 2001).

Matched samples might be more appropriate than representative random samples in the following circumstances (Reynolds et al., 2000, cited by Soares, 2004, p. 121):

(i) The type of research being conducted has culture/Nationality as a variable of interest;

(ii) The construct(s) of interest is (are) relevant to the specific homogeneous samples chosen; and,

(iii) Any matching that takes place is done using variables that are theoretically justifiable given (i) and (ii).

Although matched sampling technique is criticized for its limitations on generalization of the research findings, but it would be the most effective and appreciate technique for identifying similarities and differences among nations. Matched sampling technique used in cross national studies "makes the effect of Nationality differences…stand out unusually clearly" (Hofstede 1991, p. 13, cited by Soares, 2004).

In addition, the equivalence of the samples in terms of basic socio-economic characteristics has been acknowledged. We should match socio-economic characteristics, since certain components of the culture are shared by people of the same educational level, socioeconomic status, occupation, gender, or age group (Hofstede, 2001).

3.6.1 Why use students as samples?

The students are largely used as samples in previous studies on online shopping (e.g., Comegys et al. 2009; Kailani and Kumar 2011; Ko et al. 2010; Lee and Tan 2003; Liao et al. 2009; Ueltschy et al. 2004). Although the use of student subjects for developing and validating theories on IT diffusion and adoption has been criticized for causing a sampling bias (i.e., external validity problem and limited representativity), we believe that student sample is the best choice in our study with the consideration of both comparability and

representativity. As indicated by Soares (2004), the use of student samples depends on the research context: the research problem, objectives, hypotheses, and research context. The reasons are presented for using college student sample with regard to the aspect of comparability and the aspect of representativity.

1) Homogeneous characteristic of student sample make the comparative cross-cultural study more reasonable

A matched sample of respondents is critically important in a cross-cultural study (Dawar and Parker, 1994). They are more homogeneous in certain demographic characteristics, which permit more precise predictions and a stronger test of theory (Calder et al., 1981). According to Kailani and Kumar (2011), students are expected to share their level of exposure to the internet technology, education level, and age, and such similarities would make the comparisons of data and results more reasonable.

2) Balance of comparability with representativity in samples

It is important to balance comparability with representativity in samples. Possibly samples that is strictly comparable with regard to characteristics such as age and income may not be representative with regard to the cultural context of such characteristics. Consequently, it may be necessary to draw samples that allow for analysis with regard to representativity as well as comparability (Craig and Douglas, 2005).

Students currently comprise 33.2% of the Chinese Internet population (CNNIC 2009), one third of the Chinese Internet population falls under the scope of this study. Similarly, students are a main online shopping group in France. Several studies (Ahuja et al. 2003, Kotkin 1998) show that online consumers are generally younger and more educated than conventional consumers. Thus, while students represent only a portion of the online shopper population, they represent a disproportionately large segment of the broader online population (Kim et al., 2008). In addition, the students will eventually grow to be the most active Internet users and influential consumers in the online market, and therefore understanding of potential consumers' needs in e-commerce is very imperative to predict future trends on the adoption of e-commerce (Park et al., 2004).

3) Timing and budgetary constraints impeded selecting a sample representative for all Chinese and French consumers are another reason to use student samples in our research.

Chinese students on campus of four different universities in Beijing and Shanghai were asked to complete a printed version of the questionnaire in the class. The same was done in the universities in Paris, Grenoble and La Rochelle in France. In addition, the online questionnaires were administrated at the same time with the pencil-paper questionnaire.

3.6.2 Sampling Design

When the sample has been defined, the rest of sampling design steps is followed. According to Malhotra and Birks (2003, cited by Refaat El Said, 2005), the sampling process usually involves a number of tasks and decisions as follows:

- ☐ Definition of the population from which the sample is to be drawn
- ☐ Determination of the sampling frame
- ☐ Definition of the sampling technique
- ☐ Determination of the sample size
- ☐ Execution of the sampling process
- ☐ Sample validations

The application of these sample deign steps in the research are going to be discussed in detail in section 6.2.

3.7 Product Selection

As mentioned previously, past research shows that purchase of different types of products elicit in consumers diverse internal strategies to lower risk (Li and Zhang, 2002; Soopramanien et al., 2007; Kim et al., 2009; Samadi and Yaghoob-Najadi, 2009). Therefore, it is necessary to focus analysis of perceived risk and risk reduction strategies on one product or one product category.

According to CNNIC, the online clothing shopper group continues to expand in China. In 2010, clothing e-shoppers made up the largest online shopper group, accounting for 70.1% of total online shoppers, followed by the electronic products consumer group representing 31.6%. The third largest group purchased books, and video products and represents 31.4% of total online shoppers.

Similarly, according to the "France B2C E-Commerce Report 2011" by yStats.com GmbH & Co. KG, in 2010, almost half of the French population aged 25-34 ordered "Clothes, Sports Goods" online. Additionally, this perspective is supported by the study conducted by Cases (2001) wherein she indicates that "the clothing industry, which occupies an important place in home shopping…is very often used in studies on risk perception (Derbaix, 1983; Hawes and Lumpkin, 1986) in addition to being characterized by familiarity and frequency of purchase" (p391). By taking into account one of the largest online shopper groups, i.e. clothing shoppers; we hope that this research results in a better understanding of Chinese and French online shoppers.

3.8 Data Analysis Methods Adopted in Recent Study

Data analysis methods adopted in recent research are discussed from the aspect of both qualitative approach and quantitative approach, since a mix data gathering method is employed in our study. Content analysis and cluster analysis are employed as qualitative

analysis techniques in the research. The quantitative data analysis method used is the Structural Equation Modelling (SEM). The use of these techniques is discussed in the following section.

3.8.1 Textual Analysis

In this research, hypotheses are generated based on both the phenomenon understanding provided by qualitative studies and the previous studies existing in the literature. The qualitative analysis techniques employed in this research is textual analysis, which is used to analyze semi-structured interviews data collected by open ended surveys' questions.

In this research the semi-structured in-depth interviews are going to be conducted with Chinese and French online shoppers. The participants are encouraged to speak out one of their online shopping experiences during the past three months. From their stories, we tried to find out what were their concerns during this online shopping experience, which factors made them worry, and what is the effective way to reduce those worries.

Textual analysis aims to help researchers to understand the phenomenon of interest that they are investigating (Refaat El Said, 2005). Interview answers are going to be transcribed and analyzed through textual analysis, which involves coding all the answers given by participants and classifying words under main groups. The frequency of the actual words and their synonyms that were used by the participants to answer the questions helped to identify patterns and relationships and to distinguish differences and similarities within responses (Refaat El Said, 2005).

Miles and Huberman (1994, cited by Refaat El Said, 2005) specify steps that a researcher should go through during textual analysis, these steps are as follows:

- ☐ Summarize the data in a comprehensive representation.
- ☐ Affix codes to a set of words or phrases drawn from observations or interviews.
- ☐ Sort through the material to identify patterns and relationships, distinct differences and similarities within responses.
- ☐ Relate these patterns and relationships to data obtained from other methods so as to validate the textual analysis and provide missing information.
- ☐ Elaborate a small set of generalisations that cover the consistencies discerned in the data.
- ☐ Confront those generalisations with a formalized body of knowledge in the form of constructs and theories.
- ☐ Chapter 4 of this thesis illustrates the use of these steps in the analysis of data collected through semi-structured interviews.

3.8.2 Structural Equation Modeling Analysis

A large segment of management research in recent years has used structural equation modeling (SEM) as an analytical approach (Williams et al., 2009). Structural equation models have been useful in attacking many substantive problems in the social and behavioral sciences and later in marketing, psychology, education, and econometrics (Joreskog and Sorbom, 1982). Gefen et al., (2000) reviewed the results of analyzing techniques used in empirical articles in three major IS journals, that is, MIS Quarterly, Information & Management and Information Systems Research, during the four year period between January 1994 and December 1997. They found that SEM has been used with some frequency for validating instruments and testing linkages between constructs in two of three widely known IS journals since SEM has first appeared in 1990 in the major IS journals (Straub, 1990).

3.8.2.1 The SEM Model

The SEM model contains two inter-related models: the measurement model and the structural model (Gefen et al., 2000). According to Gefen et al., 2000, the measurement model defines the constructs (latent variables) that the model will use, and assigns observed variables to each, the structural model then defines the causal relationship among these latent variables. The measurement model uses factor analysis to assess the degree that the observed variables load on their latent constructs. The manifest or observed variables are identified as Xs and Ys, for items reflecting the exogenous and endogenous constructs respectively. SEM estimates item loading and measurement error for each observed item (Gefen et al., 2000).

3.8.2.2 SEM versus Regression Techniques

In this section we discussed linear regression models and SEM and offers guidelines as to when SEM techniques and when regression techniques should be used.

As indicated by Gefen et al. (2000), contrary to first generation statistical tools such as regression, SEM enables researchers to answer a set of interrelated research questions in a single, systematic, and comprehensive analysis. That is, SEM is a very general and chiefly cross-sectional statistical modeling technique. Factor analysis, path analysis and regression all represent special cases of SEM.

Joreskog and Sorbom (1982) pointed out that the SEM is used to specify the phenomenon under study in terms of tentative cause and effect variables and various causal effects. Each equation in the model represents a causal link rather than a mere empirical association. SEM can measure the relationships among multiple independent and dependent constructs simultaneously (Gerbing and Anderson, 1988). This capability for simultaneous analysis differs greatly from most first generation regression models such as linear regression, LOGIT, ANOVA, and MANOVA, which can analyze only one layer of linkages between independent and dependent variables at a time. As indicated by Gefen et al. (2000), SEM

permits complicated variable relationships to be expressed through hierarchical or non-hierarchical, recursive or non-recursive structural equations, to present a more complete picture of the entire model (Hanushek and Jackson, 1977; Bullock et al., 1994).

Goldberger (1973, cited by Joreskog and Sorbom, 1982) considered three situations in which structural equations are important and regression parameters fail to give the relevant information: (1) when the observed measurements contain measurement errors and when the interesting relationship is among the true or disattenuated variables, (2) when there is interdependence or simultaneous causation among the observed response variables, and (3) when important explanatory variables have not been observed (p. 404).

3.8.2.3 Two statistical techniques of SEM

There are two classes of SEM: covariance-based SEM (employed in LISREL, EQS and AMOS) and partial-least-squares based SEM (employed in PLS and PLS-Graph). These two distinct types of SEM differ in the objectives of their analyses, the statistical assumptions they are based on, and the nature of the fit statistics they produce (Gefen et al, 2000). The table 3.2 (abstracted from Gefen et al, 2000, p. 9) presents the differences between these two classes of SEM in terms of objective of overall analysis, objective of variance of analysis, required theory base, assumed distribution, and required minimal sample size.

As presented in the table 3.3, covariance-based SEM and PLS-based SEM overlap in many ways, including analysis objectives, distribution assumptions, and etiological and correlational linearity assumptions. Nonetheless, there are distinct differences among these two approaches that make each more or less appropriate for certain types of analysis. Furthermore, even when all two techniques are appropriate, the resulting set of supported hypotheses in the model may be more or less credible because of underlying data distribution assumptions and the analysis methods employed. Thus, choosing an analysis method based correctly on the research objectives and the limitations imposed by the sample size and distribution assumptions is crucial (Gefen et al, 2000). AMOS statistic tool in covariance-based SEM is used in the recent research. The following section will discuss generally how

covariance-based SEM is applied and Chapter 6 is going to give more detail on the application of AMOS in the case of our research.

Table 3.2. Comparison between Covariance-based SEM and Partial-least-squares Based SEM

Aspect	Covariance-based SEM	Partial-least-squares based SEM
Objective of overall analysis	Show that the null hypothesis of the entire proposed model is plausible, while rejecting path-specific null hypotheses of no effect.	Reject a set of path specific. Null hypotheses of no effect.
Objective of variance of analysis	Overall model fit, such as insignificant c2 or high AGFI.	Variance explanation (high R-square)
Required theory base	Requires sound theory base. Supports confirmatory research.	Does not necessarily require sound theory base. Supports both exploratory and confirmatory research.
Assumed distribution	Multivariate normal, if estimation is through ML. Deviations from multivariate normal are supported with other estimation techniques.	Relatively robust to deviations from a Multivariate distribution.
Required minimal sample size	At least 100-150 cases.	At least 10 times the number of items in the most complex constructs.

Source: Gefen et al (2000)

3.8.2.4 The Application of Covariance-based SEM

According to Gefen et al. (2000), covariance-based SEM packages generate statistics at three levels (p. 34-36). Table 3.3 presents widely used validation heuristics in covariance-based SEM.

Table 3.3. Validation Covariance-based SEM

Construct validity	Validation heuristics
At the individual path and construct level	
Cronbach's α statistics	Construct reliability should be above .70
The t-values of the γs and βs need to be significant to support the hypothesized paths	Above 1.96 or 2.56, for alpha protection levels of .05 and .01, respectively
At the overall model fit level	
Likelihood-ratio chi-square (X^2)	Some commentators recommend that the ratio of X^2 to degrees of freedom be between 1 and 2. IS literature has been more forgiving in this regard, recommending just a X^2 as small as possible and showing a ratio of X^2 to degrees of freedom smaller than 3:1.
Goodness of Fit Index (GFI)	GFI measures the absolute fit (unadjusted for degrees of freedom) of the combined measurement and structural model to the data. (above .90)
Adjusted Goodness of Fit Index (AGFI)	AGFI adjusts this value to the degrees of freedom in the model. (above .80)
Root Mean Residual (RMR)	RMR assesses the residual variance of the observed variables and how the residual variance of one variable correlates with the residual variance of the other items. It is important to note that large standardized RMR values mean high residual variance, and that such values reflect a poorly fitting model. (below .05)
Normed Fix Index (NFI)	NFI measures the normed difference in □2 between a zero factor null model with no common variance across measures and a proposed multi-factor model. (above .90)
Individual path modification indexes	
Some SEM, notably LISREL, provide modification indices that estimate the difference in model fit X^2 for each possible individual additional path.	A value in these modification matrices above 3.84 suggests that adding that path may significantly improve model fit. This criterion is analogous to the way stepwise linear regression chooses to add IVs to the regression model, except that stepwise linear regression analyzes the change in the F statistic. Researchers should be cautious, however, to add only paths justified by theory and not attempt to retrofit the model.

Source: Gefen et al (2000)

3.9 Summary

This chapter argues that post-positivism is more appropriate than positivism or interpretivism in the recent study. Firstly, according to Refaat El Said (2005), some researchers (Kuhn, 1996; Winfield, 1990) support that the goal of post-positivist matches with that of information system research. Furthermore, post-positivism is continuously gaining ground in the field of IS research as an appropriate methodological approach (Refaat El Said, 2005). Secondly, post-positivism believes that there is no single correct method in social science but multiple measures and observations, which might include both qualitative and quantitative techniques (Hirschheim, 1992, in Refaat El Said, 2005).

A hybrid qualitative and quantitative method will be used in this research. A in-depth interview will be conducted to obtain a better understanding of Chinese and French consumer perceived risk and to help design a research model. Then a quantitative method will be used to test the research model and provide statistical significance of the results.

In the light of linked emic model, we discussed the equivalence issues in cross-cultural studies. A number of different types of comparability or equivalence need to be examined. These include "the functional, conceptual and category equivalence of constructs, the linguistic and metric equivalence of the measurement instruments, and the equivalence of data collection and survey administration procedures" (Craig and Douglas, 2005, p. 179).

Student sample will be used in the recent study as the best choice with the consideration of both comparability and representativity. Clothing shoppers are chosen as our target consumers, since the online clothing shopper group continues to expand in China and in France. By taking into account one of the largest online shopper groups, i.e. clothing shoppers, we hope that this research results in a better understanding of Chinese and French online shoppers.

Lastly, this chapter discussed the data analysis methods. Content analysis and cluster analysis are employed as qualitative analysis techniques in the research. The quantitative data analysis

method used is the Structural Equation Modelling (SEM). The use of these techniques is discussed in the following section.

CHAPTER 4: PRETEST OF HOFSTEDE'S CULTURE MODEL

4.1 Overview

Most of previous cross-cultural studies are based on Hofstede's national cultural dimensions (Moosmayer and Koehn, 2011; Jones and Alony, 2007; Ko et al., 2010; Ladbury and Hinsz, 2009; Weber and Hsee, 1998; Zheng et al., 2012). These studies agree that national cultures endure over time and that they are valid as collective identities (Hofstede, 1991) yet they ignore cultural changes. Given the rapid pace of globalization, turbulent economic and political changes, and the dominance of multinational corporations (Agarwal et al., 2010), cultural values may change over time. The research question providing the main impetus for this pretest is: Does cultural values change over time? We retested Hofstede's cultural dimension scores to ensure if his individualist/collectivist cultural dimension is applicable for our research.

4.2 Method

4.2.1 Sample

Students have largely been used as samples in previous cross-cultural studies (Comegys et al., 2009; Kailani and Kumar, 2011; Ko et al., 2010; Lee and Tan, 2003; Liao et al., 2009; Ueltschy et al., 2004). A matched sample of respondents is critically important in a cross-cultural study (Dawar and Parker, 1994) because they are more homogeneous in certain demographic characteristics, which permits more precise predictions and a stronger test of theory (Calder et al., 1981). Baerrlen (1967) argues that to help ensure against conflicting explanations for differences in results in cross-cultural research, the researcher should select samples in each nation that are closely comparable. In this study, the participants were asked to answer to the questionnaire voluntarily. There was no financial compensation for participation.

The data were collected in March, 2012. A sample of 653 students from China and France participated in the survey. A total of 230 incomplete questionnaires (they have less than 40% of the questions filled in) were returned, and a total of 423 completed questionnaires were returned, yielding a response rate of 64.8%. A total of 200 and 223 questionnaires from Chinese and French respondents were used for the analysis.

4.2.2 Measures

Besides the criticism of out-dated data, Hofstede's work has been criticized for its application, since it involves identification of key work-related dimensions of national culture and provides a framework for understanding how a culture resolves the most basic problems of life in organizations. On the statistical level, Spector and Cooper (2002) criticize Hofstede's scales for their poor internal consistency reliability and this leads them to the conclusion that

the scales do not assess a single homogeneous construct and as a result should be used with caution.

Responding to the call for developing a psychometrically sound measure of Hofstede's cultural model, new scales assessing Hofstede's cultural dimensions have been proposed (Dorfman and Howell, 1987; Furrer et al., 2000; House et al., 2004; Markus and Kitayama, 1994; Oyserman, 1993; Srite and Karahanna, 2006; Vitell et al., 2003; Voich, 1995; Yoo, 1996). However, in past research there have been some limitations to the new cultural dimension measurements. First, scales have typically been developed to address one cultural dimension at a time. Second, the new instruments have tried to cover Hofstede's five cultural dimensions, but the reliability and validity have been poor. Third, the new instruments have not really addressed the original cultural dimensions proposed by Hofstede (Yoo et al., 2011).

The CVSCALE was validated in studies by Yoo and Donthu (1998, 2002), Yoo and Naveen (2005), 2011) and Yoo, Donthu, and Lenartowicz (2011). These scales have been used and generalized by scholars in many studies using student and non-student samples in several countries including Australia, Brazil, China, Hong Kong (China), India, Netherlands, Poland South Korea, the U.K., and the U.S.. Given its high reliability and generalizability, we chose to use the CVSCALE in our study to measure cultural values.

4.2.3 Questionnaire Translation

The questionnaires are adapted for Chinese-language and French-language respondents. For Chinese-language questionnaire translation, the original English questionnaire was translated into Chinese by the dissertation author who is a native Chinese speaker and has knowledge of e-commerce issues. After that, a Chinese colleague who speaks English fluently back translates the translated items into English. Then both questionnaires (the original and the translated English versions) were compared for a validity check. The back-translation is accomplished without reference to the original English-language questionnaire. While most

items survived the two translations well, some items required correction. The corrected items were once again back translated to produce the final questionnaire.

Similarly, for French-language questionnaire translation, the dissertation author translated appropriate items from the original English-language questionnaire into French. Working independently, a second English-French bilingual speaker then back translates the translated items into English. The two English-language versions (the original and the translated) are then compared and some items were revised.

The translated Chinese and French questionnaires were then pre-tested with Chinese-language and French-language respondents in France to ensure that the questions were accurate and smooth. Based on the respondents' comments, the Chinese version and French version of the questionnaire were revised.

4.3 Results and Discussion

4.3.1 Descriptive Analysis

To ensure sample equivalence, we tested respondent demographic variables including gender, age, and education. Table 4.1 provides the demographic characteristics of the Chinese and French samples. It was found that the French sample characteristics are consistent with the Chinese sample. The major proportion of the sample was between 18-22 (62.5%), followed by the group aged 23-25 (24%) and the group age 26-29 (10.5%). The largest group is made up of undergraduate students accounting for 47.5% of the sample, followed by master students with a percentage of 40.5%. Regarding the French sample, 61.4% of the sample were between the ages of 18-22, followed by those aged 23-25 (33.6%). Similarly, the majority are undergraduate students accounting for 49.3%, followed by master students (47.1%).

Table 4.1. Demographic Characteristics

Variable	Item	Chinese Data		French Dara	
		Number of observations	Percentage	Number of observations	Percentage
Gender	Female	98	49	119	53.3
	Male	102	51	104	46.7
Age	18-22	125	62.5	137	61.4
	23-25	48	24	75	33.6
	26-29	21	10.5	8	3.6
	30-35	5	2.5	3	1.3
Education	Undergraduate	95	47.5	110	49.3
	Master	81	40.5	105	47.1
	PhD	17	8.5	6	2.7
	Others	7	3.5	4	1.8

4.3.2 Reliability and Validity

Exploratory factor analysis and Cronbach's alpha test were conducted to assess the factor loadings and reliability of the constructs. After two items (LTO1 and LTO5) were eliminated, KMO (Kaiser-Meyer-Olkin test) of 0.819 and 0.767 for the Chinese and French samples respectively attest to good correlation between the items. Bartlett's Test of Spheritciy is significant. Sixty four point seventy six percent (64.76%) of total variance is explained for the Chinese data set and 56.52% of the total variance is explained for the French data set. We then looked at each construct to examine its reliability using the Cronbach's alpha and to check the scales' dimensionality using factor loadings of the items (c.f. Appendix A). The reliability and validity of the CVSCALE (Yoo and Donthu, 1998; 2002; Yoo and Naveen, 2005; 2011; Yoo et al., 2011) is confirmed in our study based on the Chinese and French samples.

4.3.3 Hypothesis Testing

Independent Sample t-Tests were performed for the mean values of the constructs between Chinese and French data sets. The results of the t-tests are presented in Table 4.2. As seen in Table 4.2, the mean scores of the five dimensions of cultural values between the Chinese and French datasets are significantly different (sig. <0.05). Precisely, we found that the mean values of Uncertainty Avoidance (UA), Individualism (IND), Power Distance (PDI), Masculinity (MAS), and Long-term Orientation (LTO) of the Chinese sample are higher than those of the French sample, whereas the mean value of IDV for China is lower than that of France.

Results of the cultural value differences between China and France are largely consistent with Hofstede's results (1984; 2001), but we have some interesting findings, particularly related to the scores on Uncertainty Avoidance, Power Distance, Collectivism, and Long-term orientation. Hofstede's (1984) study demonstrated that China was a low uncertainty avoidance culture whereas France was a high uncertainty avoidance culture. However, we noted in our study that today both China and France have high scores for Uncertainty Avoidance. China (M=5.8755) has even higher scores than does France (M=5.2756) in fact.

Regarding the Power Distance dimension, although we confirmed and concluded that China displays a higher level of Power Distance than does France, we were surprised to note that the Power Distance scores are fairly low for both the Chinese (M=2.3906) and the French (M=2.1529) samples. This signifies that both China and France display a low level of Power Distance, which contradicts Hofstede's findings (1984; 2001).

According to Hofstede (1984; 2001) in terms of Individualism/Collectivism, China values collectivism highly, while France values individualism highly. In the present study, however, we note that the Chinese value collectivism moderately and the French seem to be more collectivistic than indicated in Hofstede's study (1984; 2001).

Table 4.2. Results of Independent Sample t-Tests

Hypotheses	Mean (China)	Mean (France)	Mean differences	t	Sig.	
H1- China will display a lower level of UA than France.	5.8755	5.2756	0.59985	6.319	.000	**Not Confirmed**
H2- China will display a lower level of IND than France.	4.4905[11]	3.7022[12]	0.78825	6.909	.000	**Confirmed**
H3- China will display a higher level of PDI than France.	2.3906	2.1529	0.23769	2.010	.045	**Confirmed**
H4- China will display a higher level of MAS than France.	4.0931	2.8299	1.26321	9,918	.000	**Confirmed**
H5- China will display a higher level of LTO than France.	5.8218	5.5489	0.27293	3.094	.002	**Confirmed**

Some changes have also occurred in terms of Long-term cultural orientation value in the Chinese and French samples. According to Hofstede (1984; 2001), China has an extremely long-term orientation, whereas France has a moderate long-term orientation. Contrary to Hofstede's conclusions, we found that the French, in the recent study, value long-term orientation much more than did the French queried in Hofstede's study. For the Chinese in our study, their long-term orientation value hasn't changed much since Hofstede's time, although they don't value this cultural dimension to quite the same extent as was displayed in Hofstede's research.

Our study is not the only one that has reached results different from Hofstede's (1984; 2001). Our results are in accordance with those of certain previous studies (Fernandez et al., 1997; Wu, 2006). With its data from nine countries on four continents, Fernandez et al.'s (1997) study suggests that many shifts have occurred because of major environmental changes. According to their results, China is classified as one of the countries displaying strong uncertainty avoidance.

Furthermore, Wu (2006) evaluated Hofstede's cultural values by conducting a study comparing Taiwan and the U.S. He found that the Taiwanese participants have a medium score (M=3.01) on power distance and the U.S. participants have a medium/low score

[11] 4.4905 is the mean score of Collectivism, as CVSCALE evaluates Collectivism instead of Individualism. Individualism is explained by collectivism, since Individualism/collectivism of Hofstede's dimension is considered as a single dimension with two poles.
[12] Idem

(M=2.55) on power distance. In Hofstede's (1984) study, Taiwan was a high power distance culture whereas the United States was a low power distance culture. Thus, it seems that over time, these cultural indicators have indeed shifted. Wu (2006) explains this difference by citing previous studies (Myers, 1996; Wu et al., 2001), which suggest that Taiwan has experienced dramatic societal and cultural changes in the past two decades. For instance, Myers (1996) discusses how democracy has replaced authoritarianism in Taiwan. Wu et al. (2001) also propose that internationalization, democratization, and media liberalization are three factors that have caused societal changes in Taiwan. Due to the process of democratization, it is not surprising that the Taiwanese participants in the study have a lower power distance value than before. Wu (2006) also finds that both the Taiwanese participants (M=5.47) and the U.S. participants (M=5.57) have high scores on uncertainty avoidance. The results of his study suggest that "culture can be changed over time. When the political, societal, and economic environments change, people's cultural values also change (p. 33)". Thus, cultural theories should be periodically re-evaluated and updated (Wu, 2006).

This retest has brought insights to the shift of cultural values since Hofstede conducted his original study. Although culture values defined by Hofstede (1984; 2001) has largely confirmed in our study, there exist some changes. Therefore, the researcher in the field of cross-culture should use Hofstde's five cultural dimensions with cautions. On the other hand, the managers in the international environment are also suggested to take consideration of cultural changes when they make decisions or strategies about international market.

4.4 Summary

This retest has expanded upon Hofstede's (1984; 2001) studies in China and France and the results are largely consistent with Hofstede's (1984; 2001). Changes in cultural values over time have been compared and discussed. China displays a higher level of Masculinity and Long-term Orientation than France and a lower level of individualism than France. However, there are some slight differences between our findings and Hofstede's (1984; 2001), particularly relating to the cultural dimensions Uncertainty Avoidance and Power Distance. We found that China has high scores on Uncertainty Avoidance, scores that are even higher than those in France. This finding is totally opposite to Hofstede's (1984; 2001). Regarding Power Distance, both China and France display a low level of Power Distance, whereas the Chinese and French highly value Power Distance in Hofstede's study (1984; 2001). In addition, some slight changes have occurred in the other cultural dimensions. For example, the Chinese have a medium collectivism value rather than the previously noted high collectivism value, while the French seem to be more collectivistic than those in Hofstede's study (1984; 2001). The French in our recent study value long-term orientation much more than those in Hofstede's study.

When political, societal, and economic environments change, cultural values also change. For example, since 1978 when China began economic reforms and allowed greater openness, China has experienced extraordinary institutional and economic changes (Tisdell, 2009). This has substantially altered its culture. The Chinese, especially the young, are influenced by Western culture with its attributes including individualism and democracy. In addition, with the emergence of opportunism, Chinese concerns about risk have increased. This raises their degree of Uncertainty Avoidance. Changes have also occurred in France thanks to the influences of globalization.

CHAPTER 5: HYPOTHESES AND MODEL DESIGN

5.1 Overview

In this chapter the exploratory phase of the research is processed. The research hypotheses are proposed based on exploratory studies. According to the research methodology and the thesis framework developed in chapter 3, the exploratory phase in this chapter starts with semi-structured in-depth interview, which were conducted to understand consumer perceived risk regarding online clothing shopping and to identify the perceived risk determinants regarding to online shopping. This provided initial information and insight into the perception of risk in the different cultures. The results of the interview are then presented and discussed.

Then a model designing process follows. Research hypotheses were developed and refined by doing a literature review parallel to conducting pilot interviews with Chinese and French students. Consequently, the hypothetical research model is designed.

5.2 Semi-Structured In-depth Interviews

5.2.1 The Need for a Qualitative Approach

This research investigates the effect of culture on the Chinese and French consumer's perceived risk regarding to online shopping. In order to better understand consumer's perceived risk and its antecedents and identify research hypotheses, an exploratory approach with the qualitative method was carried out in this research. The reasons why an exploratory approach is needed are presented as follows:

Firstly, given that our research objective is to investigate the cultural influence on perceived risk and its antecedents and the first step to achieve this research objective is to better understand the consumer's perceived risk, its determinants, and the cultural effect. As discussed in the chapter 2 Literature Review, although some studies were conducted to explore the determinants of perceived risk, the further studies are still required, since these studies are lack of empirical support or overall determinants review. Consequently, it is not applicable to build the research model of the current research on the limited literature only; an exploratory phase is argued to be needed to generate mature hypotheses.

In addition, the quantitative methods and surveys are often used to report consumer's thinking patterns and to draw the portraits of the consumers. However, the use of qualitative approach allows us to go further, that is, to explore and uncover from the inside what is perceived risk and which factors can influence consumers' perceived risk. The qualitative approach leaves the consumers (respondents) free to think about their online shopping experience and their perceived risk instead of confine them in the answer choices already established (Jacques, 2009).

Therefore, in order to better understand the risk perceived by online shoppers, especially the determinants of perceived risk, the semi-structured in-depth interviews were conducted with 11 Chinese online shoppers and with 11 French online shoppers. Semi-structured in-depth interviews were employed as a tool at the initial stage of the research to explore the

determinants of perceived risk in the eyes of online consumers. The following sections are going to present in detail the interview process and the results abstracted from the interview.

5.2.2 Conducting Interviews

The semi-structured in-depth interviews were conducted with 11 Chinese students and with 11 French students, who are online consumers and already purchase the cloth during the past six month. The interview notices explaining the interview objective were put up in the department of management. We also sent an introduction to the survey to the students by email. The interviews were conducted during the months of August 2011 and January 2012. The student that intended to participate in the interview was organized in a conference room in the universities in France and in China.

The interviews included five sections with a total of nine open ended questions. Appendix C attached at the end of the dissertation presents the interview questions in French and Chinese. The questions were adapted for Chinese-language and French-language respondents. The initial interview guideline was designed in French. For Chinese-language questionnaire translation, the dissertation author translated appropriate items from the original French-language questionnaire into Chinese. Working independently, a second Chinese speaker, who has lived in the France extensively, then back translates the translated items into French. The two French-language versions (the original and the translated) are then compared. This guideline was pre-tested with Chinese-speaking and French-speaking respondents in France to ensure that the questions are easy to understand.

In the first section, the questions were general and aimed to find out what the participants online shopping experience and how they think about online shopping. In the other four sections, a number of interview questions were designed to explore their concerns about online shopping and which factors determine their online shopping concerns. The aim was to assess whether these variables have sufficient explanatory power in the way the consumer perceive the online shopping risks.

The list of prepared questions evolved continuously, as insight in the topic increased. The participants were encouraged to speak out one of their online shopping experiences during the past three months. From their stories, we tried to find out what were their concerns during this online shopping experience, which factors made them worry, and what is the effective way to reduce those worries. All interviews were conducted in Chinese or in French. The total of 18 students were interviewed one-on-one (the average time is around 10 minutes). Four telephonic interviews were conducted with Chinese students because they were not available to present in the interview room.

5.2.3 Data Analysis and Results

Interview answers were transcribed and analyzed through textual analysis, which involves coding all the answers given by participants and classifying words under main groups. The frequency of the actual words and their synonyms that were used by the participants to answer the questions helped to identify patterns and relationships and to distinguish differences and similarities within responses.

There are some interesting findings from the analysis of the interview data about consumers' online shopping behavior and their perceived risk regarding to online clothing shopping. The first general finding is that both Chinese and French participants are experienced online clothing shoppers. In addition, it seems that Chinese interviewees are more experienced than French interviewees. While French shoppers have an average of 3.5 years of online shopping experience and they purchase averagely 2.6 times in the past six month, Chinese shoppers have 5.5-year average experience and they purchase 6.2 times in the past six month. After the coding of the interview text, eleven perceived risk determinants are proposed in the table 5.1.

Table 5.1. The Frequency of the Actual Words Concerning the Perceived Risk Determinants in the Interviews

PR determinants	Chinese respondents (The frequency of the actual words)	French respondents (The frequency of the actual words)
Privacy concerns	8	9
Security protection	7	8
Reputation	7	7
Information quality	2	6
Service quality	5	3
Word-of-mouth	4	2
Third-party seal	3	3
Perceived size	3	3
Website design	3	2
System reliability	1	2
Product price	2	2

As seen in table 5.1, privacy concerns, security protection, and reputation are considered by the interviewees as the first three determinants that might influence perceived risk. Interestingly, we found that Chinese respondents are more concerns about e-retailers' reputation than French respondents. Whereas, French interviewees are are more susceptible to privacy concerns and security protection from e-retailers.

With regard to the risk dimensions perceived by Chinese and French interviewees, we found that the importance of risk dimensions to Chinese participants is different from that to French participants. Table 5.2 presents the times that risk dimensions are mentioned by interviewees for buying a clothing product on the Internet. Compared to personal perceived risks, non-personal perceived risks are considered more serious by both Chinese and French online shoppers.

For Chinese online shoppers, among the seven perceived risks, performance risk associated with the product is ranked first as predominant risk dimension. Dimensions such as source risk, delivery risk and financial risk associated with online shopping constitute major risks in the purchase of a clothing product on the Internet. Finally, the two personal perceived risks, that is, social risk and psychological risk were far below the other dimensions.

The results based on Chinese participants are different from those based on French

participants, although French online shoppers also perceived more non-personal than personal, where the ranking of source risk and privacy risk by Chinese e-shoppers is similar to that of French e-shoppers. Differing from Chinese online consumers, French online shoppers ranked as first their preoccupation with privacy risk associated with personal information, while delivery risk is considered not as much as important than Chinese consumers. This difference might be explained by the specificity of Chinese Internet shopping development and environmental support (e.g., laws, regulation support). In addition, we can explain these differences by referring to cultural differences. The reasons to explain the differences of the importance of perceived risk dimensions between Chinese consumers and French consumers are going to be discussed in detail in the chapter 6.

Table 5.2. The Frequency that Risk Dimensions are Mentioned by Chinese and French Interviewees for Buying a Clothing Product on the Internet

Perceived risk dimensions	Chinese participants	French participants
Financial risk	4	2
Performance risk	9	5
Psychological risk	1	1
Physical risk	1	0
Social risk	1	0
Time risk	1	1
Privacy risk	2	7
Payment risk	2	2
Source risk	4	1
Delivery risk	5	2

The last finding, in particular, concerns about the relation perceived risk and future intention to purchase on the same commercial site. 91% of the interviewees (except two French participants are not sure about their response) have reported that their concerns about online shopping on one site have an influence on the future online shopping on this same site.

The socio-economic data collected from the interviews allowed us to portray the consumers who participated in our interview. As illustrated in Table 5.3, the participants were all between 25 and 30 years of age. There are 5 female and 6 male Chinese participants, an average of 24 years. Similarly, we had 6 female and 5 male French participants, aged between

18 and 30 years, an average of 23 years. In addition, French and Chinese participants have equivalent level of education.

Table 5.3. Socio-Economic Data Collected from the Interviews

Categories		Chinese participants	French participants
Gender	Female	5 (45%)	6 (55%)
	Male	6 (55%)	5 (45%)
Age (average)		24	23
Education	≤ Bac+3	3 (27%)	4 (36.4%)
	Bac+4 - Bac+5	6 (54.5%)	5 (45.1%)
	>Bac+5	2 (18.5%)	2 (18.5%)

5.3 Hypotheses

Following the exploratory study, the model designing process was carried out. In this process hypotheses were developed, and the hypothetical model was designed based on the results of exploratory study and existing literature.

5.3.1 Privacy Concern and Perceived Risk

According to Kim (2008), privacy is defined as "the rights of individuals and organizations to determine for themselves how, when, and to what extent the information about them is to be permitted for others to use" (p. 23). "The ownership of personal information" (p. 42) seems to be the common point shared by multiple definitions on privacy (Tiangsoongnern, 2007). When the concept is extended to the online context, privacy relates to "concerns such as unauthorized sharing of personal information, spam from the online retailer, and disclosure of

the consumer's shopping behavior patterns" (Kim, 2008, p. 24). These concerns can increase consumers' level of perceived risk (Chellappa and Pavlou, 2002; Tiangsoongnern, 2007). Given the above, our first hypothesis is:

H1.1: Perceived privacy concerns related to website retailers will have a negative effect on Chinese consumer perception of (a) non-personal risk, (b) personal risk.

H1.2: Perceived privacy concerns related to website retailers will have a negative effect on French consumer perception of (a) non-personal risk, (b) personal risk.

5.3.2 Security Protection and Perceived Risk

Consumer security concerns are another key determinant of perceived risk (Tiangsoongnern, 2007). Consumers are usually concerned about online retailers' guarantee of security, because online shoppers have to divulge confidential information, such as credit card information on the Internet (Kim, 2008). Security protection refers to the security requirements demanded by online consumers and guaranteed by online retailers, such as "authentication, integrity, encryption, and non-repudiation" (Kim, 2008, p. 23). According to Chellappa and Pavlou (2002), the more consumers perceive security as present on a retailer's website, the less they perceive risk. This brings us to our second hypothesis.

H2.1: Perceived security protection from a retailer's website will have a negative effect on Chinese consumer perception of (a) non-personal risk, (b) personal risk.

H2.2: Perceived security protection from a retailer's website will have a negative effect on French consumer perception of (a) non-personal risk, (b) personal risk.

5.3.3 Reputation and Perceived Risk

Reputation is generally regarded as "the impression and assessment of a social entity's esteem or desirability" (Azari, 2003, p. 251). Reputation is a universal topic across many academic fields (Lin et al., 2006). According to Lin et al. (2006) in business and marketing strategy studies, a firm's reputation resides in its brand name that carries the image of the firm. For example, in business-to-consumer electronic markets, Internet buyers are found to favor websites that sell familiar products manufactured by familiar merchants (Quelch and Klein, 1996).

A good reputation can be considered as a psychological antecedent in consumer decision-making processes that affect future short-term and long-term marketing success (Clark and Montgomery, 1998). Regarding the buyer-seller relationship, firm reputation has the power to influence consumer reactions (Kanibir and Nart, 2009). More precisely, the seller's reputation has a positive effect on buyer's long-term orientation with the seller (Ganesan, 1994).

An organization with a good reputation may compensate for the perceived risk. As we argue above, online shopping is characterized by an inherently high level of perceived risk. Akaah and Korgaonkar (1988) and Zheng et al. (2012) highlight the importance attached to the manufacturer's reputation to reduce consumer perceived risk towards online shopping. Consumers are likely to perceive an e-retailer with a good reputation as being more trustworthy and credible than one with a poor reputation. Consequently, as an extrinsic cue, an e-retailers' good reputation should foster lower perception of financial, performance, and privacy risk for online shoppers (Sweeney et al., 1999).

Therefore, we suggest that the negative effect of the high perceived risk is diminished by a good organizational reputation and posit the following hypotheses.

H3.1: Good website retailer reputation will have a negative effect on Chinese consumer perception of (a) non-personal risk, (b) personal risk.

H3.2: Good website retailer good reputation will have a negative effect on French consumer

perception of (a) non-personal risk, (b) personal risk.

5.3.4 Cultural Influence on Reputation

Culture has been identified as an underlying determinant of consumer behaviour, and this extends to e-commerce (Kailani and Kumar, 2011). One way to study cultural differences is through identification and measurement of cultural dimensions (Dickson et al., 2003). The most widely quoted (as well as strongly criticized) cultural dimensions are undoubtedly those proposed by Hofstede (1980, 2001). He originally classified four cultural dimensions. They are individualism-collectivism; masculinity–femininity; uncertainty avoidance; and power distance. In a later work, future orientation was added as a fifth dimension. Each country in this model is characterized by a score on each of the dimensions. According to Hofstede's scores, China (20) displays a lower level of individualism than France (71).

5.3.4.1 The Level of Chinese and French Consumers' Perceived Risk

Previous studies have demonstrated that culture greatly influences individual decision making, attitude formation, judgment, and other cognitive processes (e.g., McCort and Malhotra 1993; Radford et al. 1993). Culture affects not only how people respond to risk but also how they perceive and evaluate risk (Choi and Geistfeld, 2004; Javenpaa and Tractinsky, 1999; Ueltschy et al., 2004). One way to study culture is through the identification and measurement of cultural dimensions (Dickson et al., 2003).

The most widely quoted (as well as strongly criticized) cultural dimensions are undoubtedly those proposed by Hofstede (1980, 2001). He originally classified four cultural dimensions: individualism/collectivism (IND/COL); masculinity (MAS); uncertainty avoidance (UA); and power distance (PDI). Future orientation was added as a fifth dimension in a later work

(2001). Each country in this model is characterized by a score on each of the dimensions. According to Hofstede's scores, China (40- fairly low) displays a lower level of uncertainty avoidance than France (86- high).

Among the five major dimensions of cultural values, uncertainty avoidance is considered the most important cross-cultural perspective of perceived risk because this dimension mirrors a culture's tolerance or intolerance of uncertainty. In other words, uncertainty avoidance is considered the most important cross-cultural perspective of perceived risk because this dimension mirrors a culture's tolerance or intolerance of uncertainty. Uncertainty avoidance refers to "the level of stress in a society in the face of an unknown future" (Hofstede, 2001, p. 29). In a country with weaker uncertainty avoidance, "not only familiar but also unfamiliar risks are accepted, such as changing jobs and starting activities for which there are no rules" (Hofstede 2001, p. 148). According to Hofstede (2001), low-uncertainty avoidance cultures are characterized by "more risk taking" (p. 132) and "preference for tasks with uncertain outcomes and calculated risks" (p. 169). In contrast, cultures high in uncertainty avoidance should tend to be less risk-taking because they are motivated by fear of failure or loss (Bontempo et al., 1997).

Hofstede (2001) negatively correlates the adoption of new media (use of Internet) with the influence of uncertainty avoidance index on perceived risk. Some researchers (Kailani and Kumar 2011; Ko et al., 2004) assume that cross-cultural differences in the uncertainty avoidance index will affect perceived online shopping risk between the two countries. Hofstede's (1984) study demonstrates that China is a low uncertainty avoidance culture; whereas France was a high uncertainty avoidance culture. Accordingly, China, low-uncertainty avoidance cultures, is characterized as more risk taking (Hofstede, 2001), while France, a culture high in uncertainty avoidance would tend to be less risk-taking. Previous studies on cross-cultural perceived risk followed this perspective. For example, conducting a cross-cultural study on U.S., Jordan, and India, Kailani and Kumar (2011) indicated that in cultures where uncertainty avoidance is high perceived risk with internet, buying is also high, and this impacts internet buying negatively. Thus, we propose the following hypothesis:

H4.1: Chinese online consumers perceive higher level of non-personal perceived risk than French consumers.

H4.2: Chinese online consumers perceive higher level of personal perceived risk than French consumers.

5.3.4.2 The Cultural Effect on Perceived Importance of Perceived Risk Determinants

Individualism versus collectivism refers to the degree of "the integration of individuals into primary groups" (Hofstede, 2001, p. 29). A high individualism score for Hofstede indicates a culture with independent attitudes and relatively loose bonds with others. In contrast, low individualism scores (a high collectivism ranking) indicates closer ties between individuals (Kim, 2008). In contrast to collectivists, people in an individualistic culture, like France for example, are more likely to seek information by themselves from direct and formal sources that are separate from their social context (Kim, 2008). Therefore, security protection and privacy, two items mainly related to a consumers' self-cognitive reasoning based on self-perception and self-interest through direct experiences and interactions with an e-vendor, are more valued in the French culture than in the Chinese culture. Similarly, members of a collectivist culture (China) are more likely to share their opinions and attitudes (Kim, 2008). We conclude then that reputation is more valued in collectivist cultures. Drawing from the cross-cultural differences concerning reputation, security concerns, and privacy, we propose the following hypotheses:

H5.1: There will be a stronger positive effect of perceived importance of privacy concern on consumer perception of (a) non-personal risk and (b) personal risk in e-retailers in a collectivist culture (China) than in an individualist culture (France).

H5.2: There will be a stronger negative effect of perceived importance of security protection on consumer perception of (a) non-personal risk and (b) personal risk for e-retailers in a collectivist culture (China) than in an individualist culture (France).

H5.3: There will be a stronger positive effect of perceived importance of website retailer reputation on consumer perception of (a) non-personal risk and (b) personal risk for e-retailers in a collectivist culture (China) than in an individualist culture (France).

5.3.5 Perceived Risk and Intention to Repurchase

From a managerial point of view, customer intention to repurchase has long been acknowledged as an underlying objective for strategic marketing planning since it brings about many favorable outcomes for companies. A major research strand on the consequences of perceived risk has examined the link between perceived risk and the post-purchase stage (Cunningham, 1967; Fosythe and Shi, 2003; Liebermann and Stashevsky, 2002; Miyazaki and Fernandez, 2001; Samadi and Yaghoob-nejadi, 2009; Vijayasarathy and Jones, 2000).

Sheth and Parvatiyar (1995) indicate that consumers tend to remain loyal to previous brand/product choices if they perceive a low level of risk in their decision making. Herrero Crespo (2009) reports in his literature review that there is empirical evidence supporting the effect of perceived risk on transaction frequency (Miyazaki and Fernandez 2001) and intention to shop in the future (Liang and Huang 1998; Vijayasarathy and Jones 2000; Liao and Cheung 2001). We thus present the following hypotheses.

H6.1: Perception of (a) non-personal risk, (b) personal risk will have negative effects on the online Chinese consumer's intention to repurchase from the website retailer.

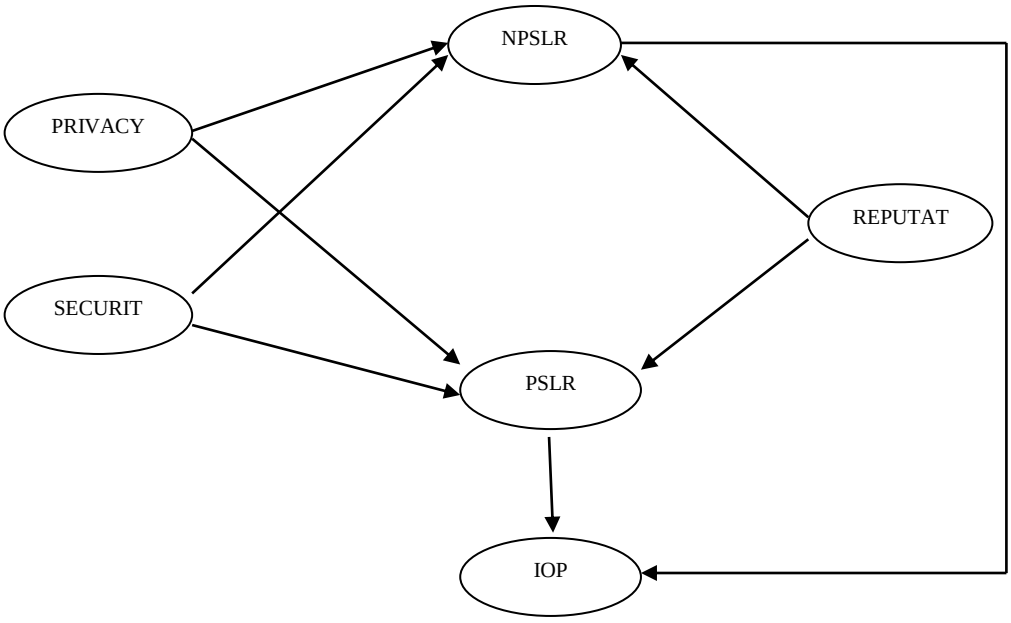
H6.2: Perception of (a) non-personal risk, (b) personal risk will have negative effects on the online French consumer's intention to repurchase from the website retailer.

5.4 Hypothetical Research Model

Based on the literature review and hypotheses, the diagram illustrated in figure 4.1 portrays the hypothetical research model (i.e., conceptual model) formulated for this research. The

model hypothesizes that perceived risk is determined by two groups of antecedents. These paths are expected to be culturally sensitive, as it is hypothesized that the cultural differences between China and France affect the perceived risk.

Figure 5.1. Hypothetical Research Model



Notes:

Privacy concern=PRIVACY; Security protection=SECURIT; Reputation=REPUTAT; Perceived Non-Personal Risk=NPSLR; Perceived Personal Risk= PSLR; Intention to Repurchase=IOP

5.5 Summary

By conducting in-depth interviews, we found that privacy concerns, security protection, and reputation are considered by the interviewees as the first three determinants that might influence perceived risk. Interestingly, we found that Chinese respondents are more concerns about e-retailers' reputation than French respondents. Whereas, French interviewees are are more susceptible to privacy concerns and security protection from e-retailers.

Besides, we found that for Chinese online shoppers, among the seven perceived risks, performance risk associated with the product is ranked first as predominant risk dimension. Dimensions such as source risk, delivery risk and financial risk associated with online shopping constitute major risks in the purchase of a clothing product on the Internet. Finally, the two personal perceived risks, that is, social risk and psychological risk were far below the other dimensions.

The last finding, in particular, concerns about the relation perceived risk and future intention to purchase on the same commercial site. 91% of the interviewees (except two French participants are not sure about their response) have reported that their concerns aobut online shopping on one site have an influence on the futre online shopping on this same site.

Following the exploratory study, the model designing process was carried out. In this process hypotheses were developed as follows based on the results of exploratory study and existing literature.

Privacy Concern and Perceived Risk

H1.1: Perceived privacy concerns related to website retailers will have a negative effect on Chinese consumer perception of (a) non-personal risk, (b) personal risk.

H1.2: Perceived privacy concerns related to website retailers will have a negative effect on

French consumer perception of (a) non-personal risk, (b) personal risk.

Security Protection and Perceived Risk

H2.1: Perceived security protection from a retailer's website will have a negative effect on Chinese consumer perception of (a) non-personal risk, (b) personal risk.

H2.2: Perceived security protection from a retailer's website will have a negative effect on French consumer perception of (a) non-personal risk, (b) personal risk.

Reputation and Perceived Risk

H3.1: Good website retailer reputation will have a negative effect on Chinese consumer perception of (a) non-personal risk, (b) personal risk.

H3.2: Good website retailer good reputation will have a negative effect on French consumer perception of (a) non-personal risk, (b) personal risk.

Cultural Influence on Reputation

The Level of Chinese and French Consumers' Perceived Risk

H4.1: Chinese online consumers perceive higher level of non-personal perceived risk than French consumers.

H4.2: Chinese online consumers perceive higher level of personal perceived risk than French consumers.

The Cultural Effect of Perceived Importance of Perceived Risk Determinants

H5.1: There will be a stronger positive effect of perceived importance of privacy concern on consumer perception of (a) non-personal risk and (b) personal risk in e-retailers in a collectivist culture (China) than in an individualist culture (France).

H5.2: There will be a stronger negative effect of perceived importance of security protection on consumer perception of (a) non-personal risk and (b) personal risk in e-retailers in a collectivist culture (China) than in an individualist culture (France).

H5.3: There will be a stronger positive effect of perceived importance of website retailer reputation on consumer perception of (a) non-personal risk and (b) personal risk in e-retailers in a collectivist culture (China) than in an individualist culture (France).

Perceived Risk and Intention to Repurchase

H6.1: Perception of (a) non-personal risk, (b) personal risk will have negative effects on the online Chinese consumer's intention to repurchase from the website retailer.

H6.2: Perception of (a) non-personal risk, (b) personal risk will have negative effects on the online French consumer's intention to repurchase from the website retailer.

The hypotheses and research model will be analyzed and discussed in the following chapter 6 and 7.

CHAPTER 6: EMPIRICAL SETTING

6.1 Overview

After the hypotheses have been developed and research conceptual model has been constructed, the hypotheses will be confirmed or disconfirmed in the following chapter. We start with empirical setting.

First, we will set sample design. As discussed in chapter 3 Methodology, student sample will be used as the best choice in our study with the consideration of both comparability and representativity. Then the sample size, the data collection process will be designed in this chapter.

Second, questionnaire design is involved in this chapter. The structure of questionnaire and scale construction will be discussed.

6.2 Sample Design

The research sample for this research was made up of online clothing shoppers. All participants have made at least one previous Internet clothing purchase. As mentioned in Chapter 2, students are largely used as samples in previous studies on online shopping (e.g., Comegys et al. 2009; Kailani and Kumar 2011; Ko et al. 2010; Lee and Tan 2003; Liao et al. 2009; Ueltschy et al. 2004). Although the use of student subjects for developing and validating theories on IT diffusion and adoption has been criticized for causing a sampling bias (i.e., external validity problem and limited representativity), we believe that student sample is the best choice in our study for considerations of both comparability and representativity. The participants were asked to voluntarily answer the questionnaire. No financial compensation was given to participants.

The total number of participants includes 424 individuals, of which 226 French students and 198 Chinese students. There are two reasons why we need a relative large sample size in our research. First, while a small sample size might contain only cases at one extreme characteristic of the population, a larger sample increases the power of statistical tests and decreases the standard error (Krathwohl, 1997). Second, for required statistical power, although we found hardly any consensus for sample size of structural equation modeling (SEM) (Sivo et al, 2006), the generally recommended value is at least 100-150 cases for AMOS analysis (Gefen et al, 2000). Factor analysis requires five observations per item. Additionally, a minimum 200 cases for each sample in China and France is strongly suggested by Pr. Valette-Florance Pierre in University Pierre-Mendes-France, who is expert in quantitative data analysis. In the current research, the overall sample size far exceeds the required size, as well as exceeds the conventional requirement for conducting factor analysis (Hair et al., 1998; Stevens, 1996).

The survey notices explaining the survey objective were put up in the department of management. We also sent an introduction to the survey to the students by email. The participants in this research were the students in Chinese (four different universities in Beijing and Shanghai) and French (four different universities in Paris, Grenoble and La Rochelle) universities, and at an age ranging from 20 to 35 years old. The students on campus

of were asked to complete a printed version of the questionnaire in the class. In addition, the online questionnaires were administrated at the same time with the pencil-paper questionnaires.

6.3 Questionnaire Design

The research instrument used to measure the constructs in this research was inspired by the three stages suggested by Moore and Benbasat (1991, cited by Kim, 2008):

- Item creation;
- Scale development;
- Instrument testing.

In the first stage, item creation, existing measurement items were reviewed for the study. An initial item pool was generated from a variety of previous research felds dealing with perceived risk and online shopping, where they were quoted to be reliable and valid to measure constructs of the phenomenon that they intend to represent. Some new instruments were developed based on the results of a literature review and exploratory interview on the topics.

For the second and third stage, scale development and instrument testing, a panel of experts (marketing and IS professors) reviewed the instrument to ensure the content validity and to identify ambiguous items of the instruments created in the first step. Then the students were asked to review the questionnaire and make sure that all of the questions in the questionnaire were easily understood. Necessary changes were made to improve both the content and clarity of the questionnaire. All pilot test respondents were excluded from the data analysis sample.

6.3.1 Structure of questionnaire

There are two major steps in the questionnaire (c.f. appendix D presents the questionnaire in English, Chinese and French version). First step is to screen the target sample for our research. Respondents will answer the questions about their nationality and their abroad living experience, and then express their experiences about online clothing purchase. At the end of the first step screening, respondents will be asked to name a website retailer that they have visited and then answer the questions in the second step based on their experience on that website.

Second step concerns our main research interests, including five sections: 1) participants' review about the website where they've bought the clothes; 2) respondents' past experience on that website; 3) respondents' intention to purchase on that website; 4) evaluation of the perceived risk in respect of a clothing purchase on that website; 5) the personality of the respondents, their demographic information and their expenditure situation.

6.3.2 Scale Construction

"Constructs are psychological in nature and individuals develop constructs, schemas and schema prototypes for all objects, entities and issues of which they are cognizant" (Scroggins et al., 2010, p. 53). Constructs are measured by a set of items where each item measures some aspects of the construct measured by the entire scale.

To measure the underlying interaction of online shoppers' perceived risk and perceived risk determinants with consideration of cultural influence, the following two approaches were chosen: the application of already existing and tested measures (e.g. Ahn et al., 2007; Belanger et al., 2002; Corbitt et al., 2003; Doney and Cannon, 1997; Kanibir and Nart, 2009; Kim, 2008; Miyazaki and Fernandez, 2000; Syed Shah Alam and Norjaya Mohd Yasin, 2010) as well as the generation of further items resulting from exploratory interviews with

respondents who were asked about the risks they associated with online shopping for clothing.

The research model of this dissertation includes five constructs. They are: non-personal perceived risk, personal perceived risk, privacy concerns, security protection, and reputation. As recommended by Bentler and Chou (1987), all constructs were measured using multi-scaled items. The items were written in the form of statements or questions. Most of the main items' scales use a 7 point Likert scale, where respondents indicate their extent of agreement with a statement from a scale of 1 to 7 (1 = strongly disagree and 7 = strongly agree). Except for non-personal perceived risk and personal perceived risk constructs which is measured by six-point scale from very low to very high. To avoid respondents' negative answer to the degree of perceived risk, the undecided answer is excluded in the scale.

Given that the most of questions are adopted from the existing literature tested in US, and a little in other countries such as in China, France, Australia, The use of dependent and independent variables developed and tested in one culture, and applied in an alternative culture has the potential for losing the emic, or meaningful aspects, of the other culture, as indicated by (Al-Khatib et al., 1995). It has been noted that to ensure reliability and validity in the cross-cultural application of a research instrument, the use of a standardized instrument should be avoided (Brislin et al., 1973). To address this potential problem, a five-step guideline for applying a domestically developed instrument in alternate cultures proposed by Dant and Barnes (1988, cited by Al-Khatib et al., 1995, p. 96) was utilized as follows:

1. Determining whether the construct has the same exact meaning in the alternative culture.
2. Determining whether the construct has a different meaning in the alternative culture.
3. Determining whether the construct indicators have no meaning in the alternative culture.
4. Determining whether the construct indicators have a different meaning in the alternative culture.
5. Determining whether the indicators can be directly measured.

One caution should be noted concerning reverse worded items. Of the instruments used in the questionnaire used in this study, privacy concerns, security protection, website design, and reputation follow the reverse worded items use recommendation. Keeping these concerns

above in mind, we are going to design measurement instrument. The detailed description of constructs in our research is presented in the following section.

6.3.2.1 Perceived Risk (non-personal risk NPSLR and personal risk PSLR)

As previously discussed in section 2.4.6, except two-dimension model measurement method, the perceived risk (non-personal risk and personal risk) is measured directly by multi-items. Compared to two-dimension model, this multi-item method seems easier and more simple to use has been appeared in many perceived risk studies.

As noted by Mitchell (1999), Bettman (1973) suggested that in the future research multiple methods of measuring risk and the other constructs of the model should be included to further examine issues of reliability and validity. Peter (1979, p. 15) noted that "perhaps a multi-item scale is needed for each type" since there are multiple dimensions of perceived risk, such as financial, social, psychological dimensions. Similarly, Stone and Gronhaug (1993) have indicated that multiple measures of risk dimensions are in fact not existed in the marketing literature.

Mitchell (1999) concluded several reasons for using multi-statements. First, these statements are more meaningful to respondents and therefore do not require briefing. Second, by specifying the components of social loss separately, each can be measured individually and the measurement of the construct. Third, with multiple statements measuring the same construct, tests of reliability and validity are possible. Forth, this multi-statement also helps overcome the briefing problem associated with trying to explain what is meant by risk to consumers.

Therefore, in the need of a better understanding of the concept of perceived risk and a better measurement, the multi-item method has been widely developed by the researchers (Keh and Sun, 2008; Kim, 2009; Ko et al., 2004).

Since multi-statement measurement are widely used by the researchers in the measure of perceived risk because of its better and complete explanation of perceived risk concept, good reliability and validity compared to two-component measurement model, we adopted multi-item measurement in our research. Another reason for considering this measurement is that in our study the other constructs (e.g., intention to repurchase, culture dimensions) are all measured by multi-statement. For the consideration of data analysis with other constructs, we chose to use multi-item measurement instead of two-component model.

The non-personal perceived risk scales used in our research are adopted from the existing scales tested by previous studies (Cunningham, 1967; Cases, 2001; Roselius, 1971; Jacoby and Kaplan, 1972; Featherman and Pavlou, 2003; Forsythe et al., 2006), comprised of five risk dimensions (physical risk, financial risk, source risk, delivery risk, and time risk. The personal perceived risk comprises of two dimensions, that is, social risk and psychological risk. The items to measure perceived risk is presented in table 6.1. A 6-item Likert scale was used to test the degree of perceived risk regarding to online purchase. 1 indicates very low and 6 very high.

Table 6.1. The item Used to Measure NPSLR and PSLR

Perceived Risk Categories	Perceived Risk Dimension	Question	Reference
Non-personal risk			
	Physical risk	The clothes have a negative effect on the body (quality, material).	Cunningham (1967); Cases (2001); Featherman and Pavlou (2003); Forsythe et al. (2006); Ko et al. (2010)
	Financial risk	Loss of money if the credit card information is hacked or Potential loss of the current cost as well as additional charges in the future (e.g., the possibility that the product may need to be repaired, be changed, or difficulty to get money back).	Cunningham (1967); Cases (2001); Roselius (1971); Jacoby and Kaplan (1972); Featherman and Pavlou (2003); Forsythe et al. (2006)
	Source risk	False or fraudulent online information causes that the clothing product purchased online doesn't meet the expectations.	Cases (2001)
	Delivery risk	Not receiving the product on time, long delivery time, or product being damaged during the delivery.	Cases (2001)
	Time risk	Waste time researching information and purchasing when finally making a bad purchasing decision.	Cunningham (1967); Cases (2001); Featherman and Pavlou (2003); Forsythe et al. (2006); Ko et al. (2010)
Personal risk			
	Social risk	The pressure from the friends or the family if the clothing purchase online is failed.	Cunningham (1967); Cases (2001); Roselius (1971); Jacoby and Kaplan (1972); Featherman and Pavlou (2003); Forsythe et al. (2006)
	Psychological risk	Loss of self-esteem, or disappointed from the frustration of not achieving a buying goal.	Cunningham (1967); Cases (2001); Roselius (1971); Jacoby and Kaplan (1972); Featherman and Pavlou (2003); Forsythe et al. (2006)

6.3.2.2 Intention to Repurchase (IOP)

Intention to repurchase (Wilingness to repurchase) is defined in our research as the consumers' intention to make an online transaction again in the case of consumers that have already made a virtual purchase before. According to the TRA (Ajzen and Fishbein, 1980), behavioral intention is a predictor of actual volitional behavior.

Since the existing researches have explored different perspectives of online shopping (Kailani and Kumar, 2011), IRP was measured using the scales in several studies. It was found that it was most useful to integrate the perspectives by including relevant items from several studies (Kailani and Kumar, 2011).

A 7-item Likert scale was used to test respondents' intention to repurchase on the website where they have already conducted a purchase. 1 indicates strongly disagree and 7 strongly agree. IOP scale is presented in table 6.2.

Table 6.2. The Item Used to Measure IOP

Question	Reference
1. If I were to buy the same product again, I would likely buy it from this website.	Kim et al., 2009; Sweeney et al. 1999
2. I am likely to return to this website for my next purchase.	Kim et al., 2009; Jarvenpaa et al., 2000
3. I will recommend this website to friends.	Kim et al., 2009

6.3.2.3 Privacy Concern (PRIVAY)

According to Kim (2008), privacy is defined as "the rights of individuals and organizations to determine for themselves how, when, and to what extent the information about them is to be permitted for others to use" (p. 23). "The ownership of personal information" (p. 42) seems to

be the common point shared by multiple definitions on privacy (Tiangsoongnern, 2007). When the concept is extended to the online context, privacy refers to "the concerns such as unauthorized sharing of personal information, spam from the online retailer, and disclosure of the consumer's shopping behavior patterns" (Kim, 2008, p. 24).

The scale (c.f. table 6.3) employed in the research to measure privacy concern were adopted from the study of Miyazaki and Fernandez (2000) and Kim (2008). A 7-item Likert was used, 1 indicates strongly disagree and 7 strongly agree.

Table 6.3. The item used to measure PRIVACY

Question	Reference
1. I am concerned about availability of written privacy policy on this website.	Miyazaki and Fernandez, 2000
2. I don't know how my personal information will be used.	Kim, 2008; Miyazaki and Fernandez, 2000
3. I am concerned about disclosure of my personal information collected to third-parties.	Kim, 2008; Miyazaki and Fernandez, 2001
4. I am concerned about disclosure of the consumer's shopping behavior patterns.	Kim, 2008
5. I don't know if my behavior is tracked and by what methods.	Kim, 2008; Miyazaki and Fernandez, 2001

6.3.2.4 Security Protection (SECURIT)

Consumer's security concern is another key determinant of perceived risk (Tiangsoongnern, 2007). Consumers usually concern about online retailers' guarantee for security, because online shoppers have to provide confidential information, such as credit card information on the internet (Kim, 2008). According to Kim (2008), security protection refers to the security fulfilled required by online consumers and guaranteed by online retailers, such as "authentication, integrity, encryption, and non-repudiation" (p. 23).

Table 6.4 presented the scale used in the research to measure security protection were adopted from the study of Corbitt et al. (2003), Kim (2008), and Miyazaki and Fernandez

(2000).

Table 6.4. The Item Used to Measure SECURIT

Question	Reference
1. This website fulfill security requirement in terms of encryption on financial transaction. e.g. credit card details.	Kim, 2008; Miyazaki and Fernandez, 2000
2. The written security policy is available on this website.	Miyazaki and Fernandez, 200
3. This website has guarantee of product delivery.	Miyazaki and Fernandez 2001
4. An individual cannot reasonably claim not to have taken an action on-line while they actually have. For example, once an order is placed, the buyer/ seller cannot deny placing such an order.	Corbitt et al., 2003; Kim, 2008

6.3.2.5 Reputation (REPUTAT)

"Reputation has been defined as the intangible asset expressing the evaluation of target market on whether the firm is substantially good or bad, and reflects the cumulative knowledge about the past and present acts of the organization" (Kanibir and Nart, 2009, p. 121). Reputation is an important organization asset, particularly in the era of e-commerce (Lin et al., 2006) and as such, researchers have been drawn to reputation issues surrounding electronic markets in recent years.

Reputation is generally regarded as "the impression and assessment of a social entity's esteem or desirability" (Azari, 2003, p. 251). Although a company has many different ways to build its reputation, (advertising or promotion being two methods) reputation is ultimately judged by external entities rather than by the company itself (e.g., Fombrun and Shanley, 1990; Fombrun, 1996). Despite this, reputation has the potential to generate concrete values if it is successfully created by a firm (Kanibir and Nart, 2009).

Table 6.5 presented the scale used in the research to measure security protection were adopted from the study of Wu and Petroshius (1987) and Jarvenpa et al. (2000).

Table 6.5. The item used to measure REPUTAT

Question	Reference
1. This website is well known.	Kanibir and Nart, 2009 adapted from Wu and Petroshius, 1987; Jarvenpa et al., 2000
2. This website has a good reputation.	Jarvenpaa et al., 2000
3. This website is known to be concerned about customers.	Jarvenpaa et al., 2000

6.4 Data Collection

The questionnaires were adapted to Chinese-language and French-language respondents. The back-translation method was used to translate the original English questionnaire into the Chinese and French versions. The translated Chinese and French questionnaires were then pre-tested with Chinese-language and French-language respondents in France to ensure that the questions were accurate and nuanced. Based on the respondents' comments, the Chinese and French versions of the questionnaire were then revised.

Students have primarily been used as samples in previous cross-cultural studies (e.g., Comegys et al., 2009; Kailani and Kumar, 2011; Ko et al., 2010; Lee and Tan, 2003; Liao et al., 2009; Ueltschy et al., 2004). Although use of student subjects has been criticized for causing a sampling bias (i.e., external validity problem and limited representativity), we believe that a student sample is the best choice for our study in terms of comparability considerations. A matched sample of respondents is critically important in a cross-cultural study (Dawar and Parker 1994). Students are more homogeneous in certain demographic characteristics, which permit more precise predictions and a stronger test of theory (Calder et al. 1981). Baerrlen (1967) argues that to help ensure against alternative explanations of differences in results in cross-cultural research, the researcher should select samples in each nation that are closely comparable. The participants were asked to answer the questionnaire voluntarily. There was no financial compensation given to the participants.

The survey was conducted among Chinese university students in the department of management at four different universities in Beijing and Shanghai. The participants ranged in age from 20 to 35 years old. The students were asked to complete a printed version of the questionnaire in the class. The online questionnaires were administrated at the same time as the hard-copy questionnaires. The data were collected in 2012 from March to May.

6.5 Summary

In this chapter, the empirical setting has been prepared for the data analysis in the next chapter, including sample and questionnaire design.

For smaple design, the students who have at least purchased one time the cloth from the Internet in our target sample. A large sample size is needed in our research, since a larger sample increases the power of statistical tests and decreases the standard error (Krathwohl, 1997), and AMOS structural equation modeling analysis program requires at least 100-150 cases.

For questionnaire design, we followed the stages suggested by Moore and Benbasat (1991, cited by Kim, 2008). In the first stage, item creation, existing measurement items were reviewed for the study. An initial item pool was generated from a variety of previous research fields dealing with perceived risk and online shopping. For the second and third stage, scale development and instrument testing, a panel of experts (marketing and IS professors) reviewed the instrument to ensure the content validity and to identify ambiguous items of the instruments created in the first step. Then the students were asked to review the questionnaire and make sure that all of the questions in the questionnaire were easily understood. Necessary changes were made to improve both the content and clarity of the questionnaire.

In the next chapter, detailed analysis of data will be provided and interpreted. The hypotheses will be confirmed or disconfirmed and the findings will be discussed with previous relevant studies.

CHAPTER 7: DATA ANALYSIS

7.1 Overview

This chapter elaborates on the model testing results, where data analysis and result interpretations are conducted. The analysis of data obtained from questionnaire survey conducted with 226 French students and 198 Chinese students who have at least purchased one time the cloth from the Internet. The statistical analysis undertaken in this research is processed according to the following sequence:

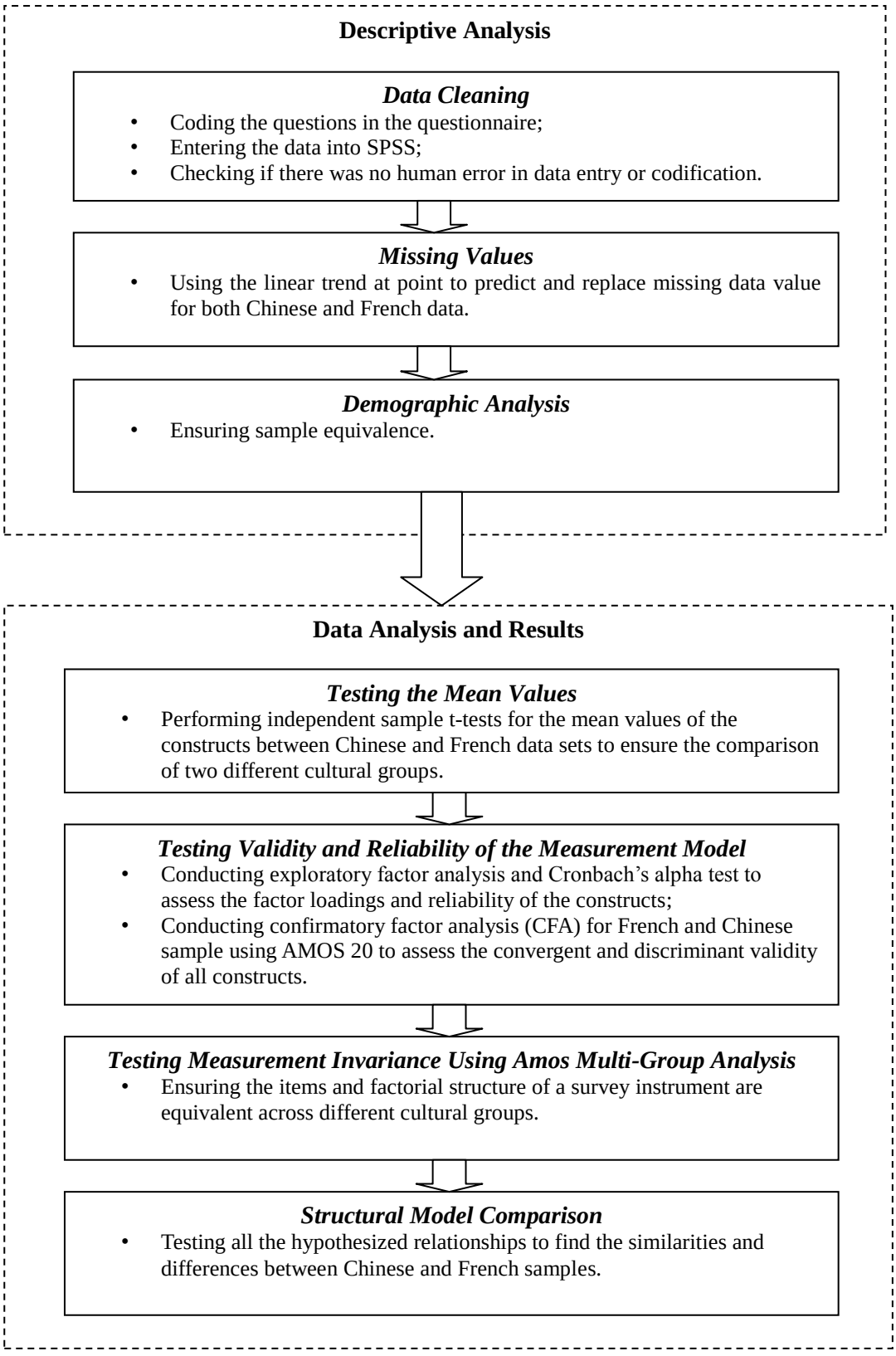
First, a descriptive analysis is executed to prepare the data, including data cleaning, missing values, and demographic analysis;

Second, the Structural Equation Modeling (SEM) analysis is executed using the AMOS. This includes the measurement model analysis and the structural model analysis. We start with a t-test mean value to ensure the constructs among Chinese and French samples are comparative. Within the measurement model analysis, an exploratory factor analysis and Cronbach's α are carried out to test validity and reliability of the measurements. After eliminating certain items, confirmatory factor analysis for French sample and Chinese sample are conducted respectively using AMOS to assess the convergent and discriminant validity of all constructs.

Then measurement invariance is tested using AMOS multi-group analysis to ensure the items and factorial structure of our survey instrument is equivalent across Chinese and French cultural groups. Within the structural model analysis, the testing of hypotheses will be discussed through the significance of paths and the statistical comparison of path coefficients within the two cultural groups.

Figure 7.1 provides a graphical representation of the statistical processes and their objectives in this research.

Figure 7.1. The Statistical Processes and their Objectives in the Research



7.2 Descriptive Analysis

7.2.1 Data Cleaning

A sample of 760 students from China and France participated in the survey. A total of 215 incomplete questionnaires were returned (having fewer than 40% completed quesions), and a total of 545 completed questionnaires were returned, yielding a response rate of 71.7%. A total of 195 and 221 questionnaires respectively from Chinese and French respondents were used for the analysis.

The questionnaires were numbered. This number was listed on the questionnaire during the data coding for easy identification in the case of coding errors (Plaisent et al., 2009). The questions in the questionnaire were coded. Then the data was entered into SPSS 20. The items which were coded reversely have been recoded.

After entering the data into SPSS, we checked if there was no human error in data entry or codification. Simple check was carried out in the menu Frequencies by running Mean, Median, Minimum, Maximum, STD. deviation, and variance analysis. For example, we found one data entry error in Gender in the Chinese sample data, that is, there is a Gender value 4 instead of 0 or 1. Within the French sample descriptive analysis we found anther data entry error that there is a PRIVACY3 value 41 out of 1-7. So we had to verify the data by reviewing the original questionnaire.

7.2.2 Missing Values

Frequencies analysis showed that there are 92 variables with missing values (out of total 105 variables) for Chinese samples. For French sample, there are 90 variables with missing values. We then used MVA Little' MCAR Test to verify the missing values mechanism, that

is, to test if the values are Missing Completely at Random (MCAR, if missingness[13] depends neither on observed nor on missing values), Missing at Random (MAR, If missingness depends only on observed values), or Not Missing at Random (NMAR, If missingness depends on both observed and missing values, then values are *not missing at random*), introduced by Rubin (1976), Little (1992) and Schafer (1997).

Related to Chinese sample, since Sig.=0.282 in Little' MCAR results is higher than ,05, we concluded that the values are MCAR. Similarly for French sample, Sig. = 0.557 in Little' MCAR results is higher than ,05, so the values are MCAR. Consequently, we used the linear trend at point to predict and replace missing data value for both Chinese and French data.

7.2.3 Demographic Analysis

To ensure sample equivalence, we tested respondent demographic variables (e.g., gender, age, education). Table 4.1 provides the demographic characteristics of the Chinese and French samples. The French sample characteristics were found to be consistent with the Chinese sample. For the Chinese sample, 95 (48.7%) females and 100 (51.3%) males responded to the questionnaire. The major proportion of the sample was between 18-22 years of age (63.6%), followed by the group aged 23-25 (23.6%) and the group aged 26-29 (9.7%). The major group is undergraduate students accounting for 46.2%, followed by master students with a percentage of 41.5%. Regarding the French sample, the preponderance of respondents is aged 18-22 (62%), followed by those aged 23-25 (33.9%). Similarly, the major group is undergraduate students accounting for 49.8%, followed by master students (47.5%).

Table 7.1 provides the demographic characteristics of the Chinese and French samples. Respondents were asked two questions regarding their online shopping experience. One question aims to measure online shopping frequency and the other intends to evaluate years of online shopping experience. In the Chinese sample, 26.2% of the respondents have one to

[13] "Let *missingness* be the probability that a value is missing rather than observed" (Von Hippel, 2004, p.160).

two years of online shopping experience and 18.5% of the respondents have two to four years of experience. These are the two largest groups.

Table 7.1. Demographic Characteristics

Variable	Item	Chinese Data		French Data	
		Number of observations	Percentage	Number of observations	Percentage
Gender	Female	95	48.7	118	53.4
	Male	100	51.3	103	46.6
Age	18-22	124	63.6	137	62
	23-25	46	23.6	75	33.9
	26-29	19	9.7	7	3.2
	30-35	5	2.6	2	0.9
Education	Undergraduate	90	46.2	110	49.8
	Masters	81	41.5	105	47.5
	PhD	17	8.7	2	0.9
	Others	7	3.6	4	1.8
Online shopping years	<3 months	33	16.9	6	2.7
	3-6 months	28	14.4	6	2.7
	6-12 months	16	8.2	20	9.0
	1-2 years	51	26.2	62	28.1
	2-4 years	36	18.5	81	36.7
	>4 years	31	15.9	46	20.8
Online shopping frequencies	1-2 times	89	45.6	109	49.3
	3-5 times	59	30.3	78	35.3
	6-10 times	21	10.8	21	9.5
	>10 times	26	13.3	13	5.9

We find that the French sample characteristics are basically consistent with the Chinese sample. The respondents are 18-22 years old (62%), followed by the 23-25 year olds (33.9%). Similarly, the major group is undergraduate students accounting for 49.8%, followed by Master students (47.5%). Thirty six point seven percent of respondents declared having 2 to 4 years of online shopping experience, followed by 28.1% of respondents who have 1 to 2 years online shopping experience. Compared with the Chinese sample, we note that French respondents are more experienced online shopper s than are Chinese respondents.

7.3 Data Analysis and Results

7.3.1 Testing the Mean Values

Independent Sample t-tests were performed for the mean values of the constructs between Chinese and French data sets to ensure the comparison of the two different cultural groups (Kim, 2008). The results of the t-tests are presented in Table 7.2. According to the results, the mean scores of all constructs between the Chinese and French data are significantly different (sig. <0.05).

Regarding the T-test scores of perceived non-personal risk and personal risk for the French and Chinese samples, it is interesting to note that both the Chinese and French respondents perceive low levels of non-personal and personal risk regarding their online clothing purchases (the scores of both samples < 3), but the Chinese respondents perceive higher non-personal risk (M=2.8928) than the French respondents (M=2.2411) and higher personal risk (M=2.7230) than the French respondents (M=2.2963). H 4.1 and H 4.1 are therefore confirmed (c.f. table 7.2).

7.3.2 Testing Validity and Reliability of the Measurement Model

To ensure the appropriateness of the instrument, it was tested for content validity, reliability, construct validity, and convergent validity of measurement model before structural model testing (Kim, 2008). Exploratory factor analysis and Cronbach's alpha test were conducted to assess the factor loadings and reliability of the constructs. After two items (PRIVACY1 and SECURIT4) were eliminated, KMO (Kaiser-Meyer-Olkin test) of 0.815 and 0.781 respectively for the Chinese and French sample attest to good correlation between the items. Bartlett's Test of Spheritcity is significant. Seventy two points zero one percent of total variance is explained for the Chinese data set and 67.727% of total variance is explained for

the French data set. We then looked at each construct to examine the reliability using Cronbach's alpha and to check the scales' dimensionality using factor loadings of the items (c.f. Appendix E).

We then conducted confirmatory factor analysis (CFA) for the French sample and the Chinese sample using AMOS 20 to assess the convergent and discriminant validity of all constructs. The constructs (i.e., reputation, non-personal perceived risk, personal perceived risk and intention to repurchase) were modeled as first-order correlated factors.

For convergent validity, according to the two CFA results (c.f. figure 7.1 and 7.2), all of the individual item lambda coefficients are greater than 0.60 (from 0.68 to 0.92 for the Chinese sample and from 0.61 to 0.92 for the French sample), except that of non-personal risk item delivery (0.56) in the French model which is less than 0.60. Despite the fact that after eliminating that item the model fit of the French sample improved, and we decided to keep the item because it is an important dimension for non-personal risk. Each path has a significant t-statistic at the level of 0.05. Convergent validity is supported.

To establish discriminant validity, the interconstruct correlations among the latent variables should be less than 0.60 (Kim, 2008). All the interconstruct correlations are <0.60, except the correlations between personal risk and non-personal risk in both the French (0.65) and the Chinese (0.73) samples. We ran the alternative model by combining personal risk and non-personal risk. The model fit was worse than the original model, thus, we confirm that the discriminant validity although the original model is not optimal. The measurement model fit the data well, as the following fit statistics indicate (c.f. appendix F): For the Chinese sample, CMIN/DF=1.464, GFI=0.895, CFI=0.956, IFI=0.957, TLI=0.947, RMSEA=0.049; for the French sample, CMIN/DF=1.560, GFI=0.904, CFI=0.951, IFI=0.952, TLI=0.940, RMSEA=0.050.

Table 7.2. Results of Independent Sample t-tests

	Chinese sample			French sample			Mean	Std. Error	t	Sig.
	Mean	Std. Deviation	Std. Error Mean	Mean	Std. Deviation	Std. Error Mean				
Reputation (REPUTAT)	5.4694	1.18178	0.08463	5.9029	1.11468	0.07498	-0.43347	0.11265	-3.848	0.000
Privacy (PRIVACY)	4.8893	1.24321	0.08903	4.5126	1.37415	0.9244	0.37671	0.12914	2.917	0.004
Security (SECURIT)	5.1361	1.11955	0.08017	5.7287	0.8367	05601	-0.59260	0.9780	-6.059	0.000
Non-personal perceived Risk (NPSLR)	2.8928	1.04029	0.07450	2.2411	0.88309	0.5940	0.65174	0.09528	6.840	0.000
Personal Perceived Risk (PSLR)	2.7230	1.12702	0.08071	2.2963	1.21531	0.08175	0.42672	0.11542	-4.116	0.000
Intention to repurchase (IOP)	5.3428	1.20185	0.08607	5.8091	1.10870	0.07458	-0.46634	0.11331	-4.116	0.000

7.3.3 Testing Measurement Invariance Using Amos Multi-Group Analysis

Measurement invariance refers to whether items and factorial structure of a survey instrument are equivalent across different cultural groups. It is crucial to establish measurement invariance because items may have different meaning for different population groups, and thus the factorial structure of the measurement instrument might not hold across groups (Steenkamp and Baumgartner, 1998). When a measurement instrument is not equivalent in a cross-cultural study, the validity of research findings are problematic and need further investigation. Multi-group invariance in this study was tested using Amos Graphics.

Step 1: The baseline model

As a prerequisite to testing for factorial invariance, it is customary to consider a baseline model, which is estimated for each group separately (c.f. figure 7.1 and 7.2). This baseline model represents one that best fits the data from the perspectives of both parsimony and substantive meaningfulness (Byrne, 2004).

Step 2: Testing for the validity of the Hypothesized Model across France and China

As a preliminary step in testing for invariance across groups, we test for the validity of the hypothesized model. Parameters are estimated for two groups simultaneously (Byrne, 2004). Goodness-of-fit statistics related to this two-group unconstrained model are reported in Table 4.3. The chi-square value of 467.092, with 310 *df*, provides the baseline value against which subsequent tests for invariance may be compared. Comparative fit index (CFI) and root mean squared error of approximation (RMSEA) values of 0.953 and 0.035 respectively, indicate that the hypothesized model represents a relatively good fit across China and France.

Figure 7.2. Confirmatory Factor Analysis for the Chinese sample

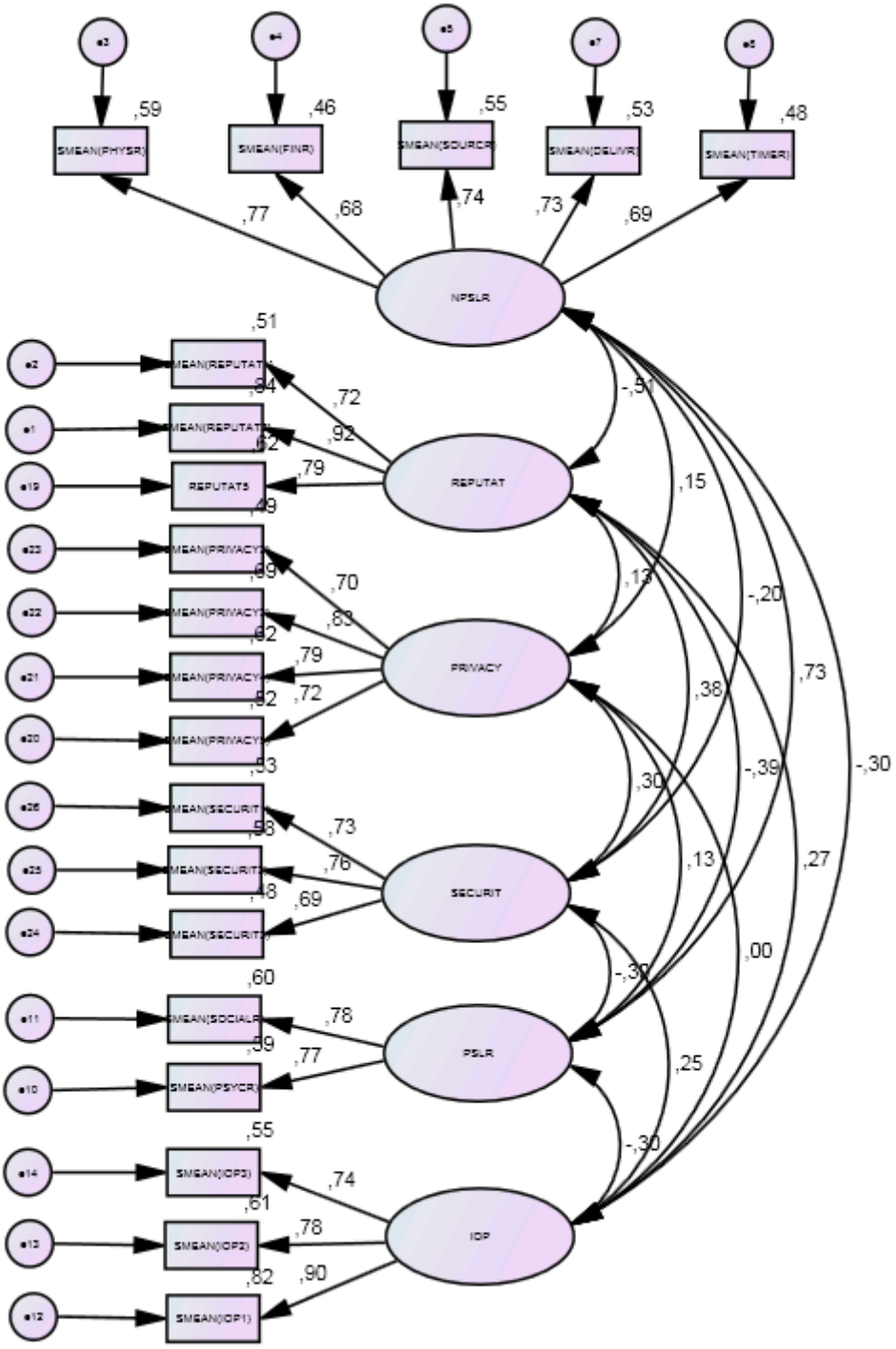
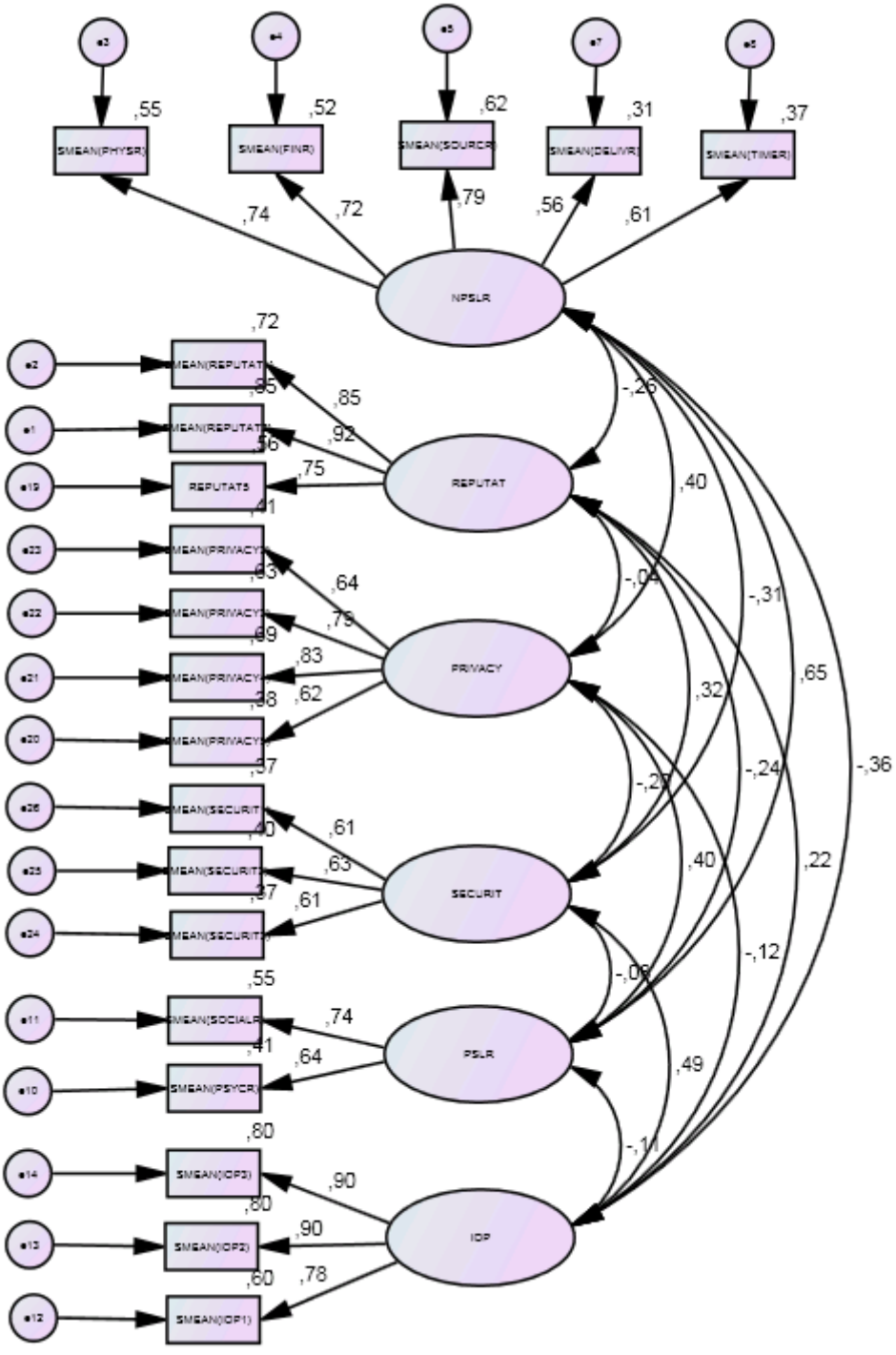


Figure 7.3. Confirmatory factor analysis for the French sample



Step 3: Testing for Invariance of the Fully Constrained Model across France and China

Prior to testing for the equality of sets of parameters, it is worthwhile testing for the possibility that a fully constrained model is invariant across groups (Byrne, 2004). All factor loadings are constrained equal across France and China. Goodness-of-fit statistics related to this constrained two-group model are presented as the second entry in table 7.3. In testing for the invariance of this constrained model, we compare its chi-square value with that for the initial model (Model 1). Since the measurement weights model (fully constrained model) was nested with the unconstrained model (i.e. a15_1=a15_2; a1_1=a1_2; a2_1=a2_2; a3_1=a3_2; a16_1=a16_2; a4_1=a4_2; a17_1=a17_2; a5_1=a5_2; a6_1=a6_2; a7_1=a7_2; a18_1=a18_2; a8_1=a8_2; a9_1=a9_2; a10_1=a10_2; a19_1=a19_2; a11_1=a11_2; a12_1=a12_2; a13_1=a13_2; a20_1=a20_2; a14_1=a14_2 in figure 4.3), the chi-square difference value of 46.179 with 20 *df*, which is statistically significant ($p<0.05$), indicate that some equality constraints do not hold across France and China. The instrument used in this study is the one with partial measurement invariance. The next step is to identify factor loadings of items that are equivalent and that are non-equivalent across groups.

Step 4: Partial Measurement Invariance

Given findings of non-invariance at the level of all factor loadings, we then proceed to test for the invariance of all factor loadings in each subscale (i.e., all loadings related to the one particular factor). Given evidence of non-invariance at the subscale level, we then test for the invariance of each factor loading (related to the factor in question) separately. Compared with the unconstrained model, the chi-square difference of REPUT (a15_1=a15_2; a1_1=a1_2; a7_1=a7_2), PRIVACY (a18_1=a18_2; a8_1=a8_2; a9_1=a9_2; a10_1=a10_2), SECURIT (a19_1=a19_2; a11_1=a11_2; a12_1=a12_2), NPSLR (a2_1=a2_2; a3_1=a3_2; a13_1=a13_2; a20_1=a20_2; a14_1=a14_2), PSLR (a16_1=a16_2; a4_1=a4_2) and IOP (a17_1=a17_2; a5_1=a5_2; a6_1=a6_2) indicated that factor loadings associated with NPSLR ($p=0.075$), PSLR ($p=0.973$) and IOP ($p=0.208$) have been found to be group invariant, whereas factor loadings related to REPUT, PRIVACY, and SECURIT are invariant (c.f. figure 7.3). At this point, we attempt to pinpoint these non-invariant items. The item REPUT 2, PRIVACY 2, and SECURIT 1 ($p<0.05$) was indicated as not invariant across France and China (c.f. model 6, model 10, and model 14 respectively in table 7.3).

Step 5: Testing for Invariance of Structure Model across France and China

First we test for invariance of all structural paths (c.f. table 7.4 and figure 7.4). We constrained all structural paths, that is, b1_1=b1_2; b2_1=b2_2; b3_1=b3_2; b4_1=b4_2; b5_1=b5_2; b6_1=b6_2; b7_1=b7_2; b8_1=b8_2. Given evidence of inequality on all corresponding structural paths across groups ($p<0.05$), one or more regression weights of the paths in the structure model are different between France and China. We then test for the invariance of each structural path separately to pinpoint the non-invariance regression paths (Kim, 2008). To pinpoint these different regression paths, the orderly process of testing for the invariance of regression weight parameters is continued until all hypothesized parameters are found to be equivalent across groups, their specified equality constraints are retained (cumulatively) throughout the remainder of the invariance-testing process (Byrne, 2004). The results from this series of tests indicate that the effects of PRIVACY to NPSLR (model 7), PRIVACY to PSLR (model 8), SECURIT TO NPSLR (model 10), NPSLR to IOP (model 5), and PSLR to IOP (model 6) are not invariant across France and China.

Figure 7.4. Multi-group Measurement Equivalence

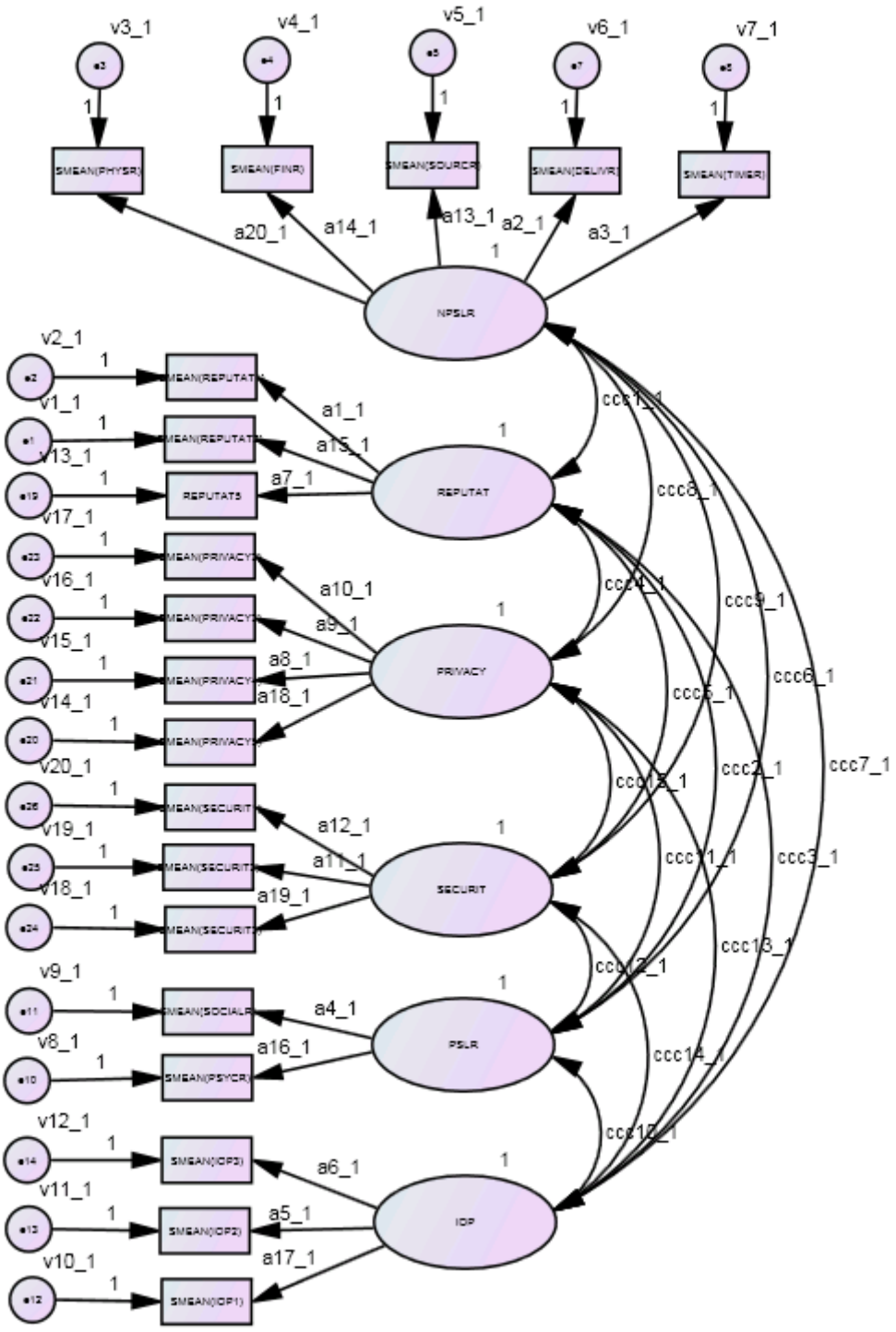


Figure 7.5. Multi-group Structural Equivalence

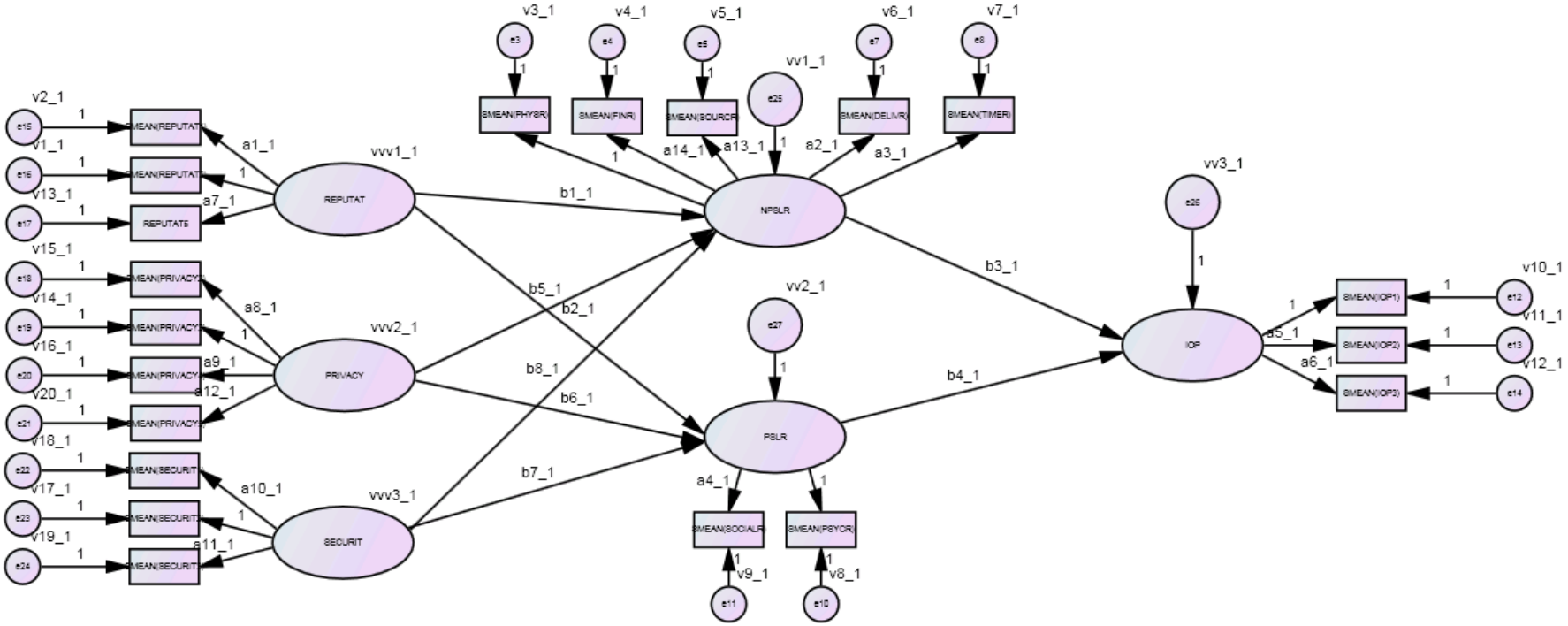


Table 7.3. Goodness-of-fit Statistics for Tests of Measurement Invariance across France and China

Model Description	X^2	df	ΔX^2	Δdf	p-value	RMSEA	NFI	CFI
1. Unconstrained model	467.092	310	-	-	-	0.035	0.875	0.953
2. Fully factor loadings constrained equal model	513.271	330	46.179	20	p<0.05	0.037	0.862	0.945
3. Model 2 with factor loadings of NPSLR constrained equal	462.596	315	4.911	5	ns	0.034	0.875	0.956
4. Model 2 with factor loadings of REPUT constrained equal	476.004	313	18.319	3	p<0.05	0.035	0.872	0.951
5. Model 2 with factor loadings of item REPUT1 constrained equal	507.678	329	49.992	19	ns	0.036	0.863	0.946
6. Model 2 with factor loadings of item REPUT1 and item REPUT2 constrained equal	500.002	329	42.317	19	p<0.05	0.035	0.865	0.949
7. Model 2 with factor loadings of item REPUT3 constrained equal	511.259	329	53.574	18	ns	0.037	0.862	0.945
8. Model 2 with factor loadings of PRIVACY constrained equal	477.638	314	19.953	4	p<0.05	0.035	0.871	0.951
9. Model 2 with factor loadings of item PRIVACY 1 constrained equal	508.359	329	50.674	19	ns	0.038	0.859	0.942
10. Model 2 with factor loadings of item PRIVACY 1 and item PRIVACY 2 constrained equal	512.785	329	55.100	18	p<0.05	0.038	0.859	0.942
11. Model 2 with factor loadings of item PRIVACY 3 constrained equal	502.027	329	44.341	19	ns	0.036	0.862	0.946

Notes: 1. ΔX^2 = difference in chi-square values; Δdf = difference in degrees of freedom; ns = not significant
2. All models compared with Model 1.

Table 7.3. Goodness-of-fit Statistics for Tests of Measurement Invariance Across France and China (Continued)

Model Description	X^2	df	ΔX^2	Δdf	p-value	RMSEA	NFI	CFI
12. Model 2 with factor loadings of item PRIVACY 3 and item PRIVACY 4 constrained equal	509.636	329	51.951	18	p<0.05	0.037	0.860	0.943
13. Model 2 with factor loadings of SECURIT constrained equal	475.830	313	18.145	3	p<0.05	0.035	0.872	0.951
14. Model 2 with factor loadings of item SECURIT 1 constrained equal	520.345	329	62.659	19	p<0.05	0.037	0.860	0.942
15. Model 2 with factor loadings of item SECURIT 2 constrained equal	519.315	329	61.629	19	ns	0.037	0.860	0.943
16. Model 2 with factor loadings of item SECURIT 2 and item SECURIT 3 constrained equal	517.385	329	59.700	19	ns	0.037	0.860	0.943
17. Model 2 with factor loadings of PSLR constrained equal	457.739	312	9.353	2	ns	0.034	0.877	0.956
18. Model 2 with factor loadings of IOP constrained equal	462.238	313	4.553	3	ns	0.034	0.875	0.955

Notes: 1. ΔX^2 = difference in chi-square values; Δdf = difference in degrees of freedom; ns = not significant
2. All models compared with Model 1.

Table 7.4. Goodness-of-fit Statistics for Tests of Structural Invariance Across France and China

Model Description	X^2	df	ΔX^2	Δdf	p-value	RMSEA	NFI	CFI
1. Unconstrained model	628.692	324	-	-	-	0.048	0.835	0.911
2. Fully structural paths constrained equal	646.062	332	17.371	8	p<0.05	0.048	0.830	0.908
3. Model 2 with REPUT towards NPSLR structural path constrained equal	639.764	331	11.072	7	ns	0.047	0.832	0.910
4. Model 2 with REPUT towards NPSLR and REPUT towards PSLR structural path constrained equal	638.521	330	9.829	6	ns	0.048	0.832	0.910
5. Model 2 with NPSLR towards IOP structural path constrained equal	645.953	331	17.262	7	p<0.05	0.048	0.830	0.908
6. Model 2 with PSLR towards IOP structural path constrained equal	644.273	331	15.581	7	p<0.05	0.048	0.831	0.908
7. Model 2 with PRIVACY towards NPSLR structural path constrained equal	645.916	331	17.227	7	p<0.05	0.048	0.830	0.908
8. Model 2 with PRIVACY towards PSLR structural path constrained equal	644.324	331	15.633	7	p<0.05	0.048	0.831	0.908
9. Model 2 with SECURIT towards NPSLR structural path constrained equal	643.341	331	14.649	7	ns	0.048	0.831	0.909
10. Model 2 with SECURIT towards PSLR structural path constrained equal	644.867	331	16.176	7	p<0.05	0.048	0.830	0.908

Notes: 1. ΔX^2 = difference in chi-square values; Δdf = difference in degrees of freedom; ns = not significant
2. All models compared with Model 1.

7.3.4 Structural Model Comparison

We employed the structural equation model with the maximum likelihood estimation method to test all the hypothesized relationships (c.f. appendix H structural equation model for Chinese sample and appendix K structural equation model for Chinese sample). Figures 7.5 and 7.6 present the results of the structural model testing. The minimum was achieved with adequate model fit (c.f. appendix I Model fit for Chinese sample and appendix L Model fit for French sample). The regression weights for Chinese sample and French samples are presented respectively in appendix J and M.

As shown in Figure 7.5, for the Chinese model, it was found that privacy concerns have positive effects on consumer perception of non-personal risk and personal risk with coefficients of 0.204 ($p<0.001$), and 0.189 ($p<0.01$). The more Chinese online shoppers perceive privacy concerns regarding a retailer's website, the more they perceive non-personal risk and personal risk. H 1.1a and H 1.1b are therefore confirmed (c.f. table 7.5).

Evidence of security protection measures on a retailer's website has a positive effect on consumer perception of personal risk with coefficients of -0.185 ($p<0.01$). The more Chinese online consumers perceive security protection, the less they perceive personal risk, such as social risk and psychological risk. H2.1b is therefore confirmed and H2.1a is not confirmed.

Reputation in the Chinese model has significant negative effects on both consumer non-personal risk and personal risk perception of an e-retailer, with path coefficients of -0.488 ($p<0.001$), and -0.369 ($p<0.001$) respectively. The more Chinese online clients perceive an e-retailer as having a good reputation, the less they perceive risk. H3.1a and H3.1b are confirmed. This finding confirms that of Sweeney et al. (1999).

In addition, both non-personal perceived risk (Beta=-0.264, $p<0.05$) and personal perceived risk (Beta=-0.249, $p<0.05$) have significant negative impact on intention to repurchase. The more Chinese online consumers perceive both non-personal risk and personal risk, the less they intend to repurchase on the website. Thus, our data supports H6.1a and H6.1b.

On the other hand, for the French model, it was found that privacy concerns also have positive effects on French consumer perception of non-personal risk and personal risk with path coefficients of -0.308 ($p<0.001$) and -0.408 ($p<0.01$) respectively. The more French online shoppers perceive privacy concerns regarding a retailer's website, the more they perceive non-personal risk and personal risk. Thus, H1.2a and H1.2b are confirmed.

Concerning the relationship between security protection and perceived risk, we find that Security protection from a retailer's website has positive effects on consumer perception of non-personal risk with coefficients of -0.262 ($p<0.05$). The more French online shoppers perceive security protection, the less they perceive non-personal risk, such as physical risk, financial risk, source risk, delivery risk and time risk. H2.2a is therefore confirmed and H2.2b is not confirmed.

Reputation also has negative effects on consumer perception of non-personal risk and personal risk with path coefficients of -0.180 ($p<0.001$) and -0.241 ($p<0.01$) respectively. Thus, H3.2a and H3.2b are confirmed.

There is a negative relation between non-personal risk and intention to repurchase (Beta=-0.584, $p<0.001$). The more French online shoppers perceive non-personal risk, the less they have intention to repurchase on the website. H6.2a is confirmed and H6.2b is not confirmed.

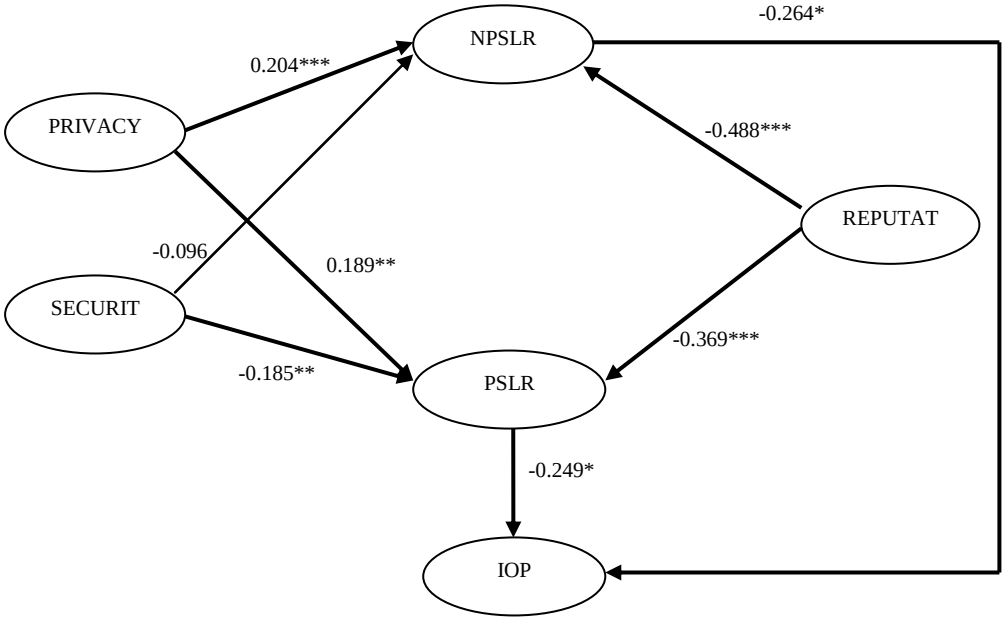
The results of multi-group analysis and structural model comparison confirm that there are differences in the effect of privacy concerns, security protection, and reputation on both non-personal risk and personal risk perception between the online consumers in a collectivist culture (China) and those in an individualist culture (France). There is a stronger positive effect of perceived importance of privacy concerns on consumer non-personal perceived risk with e-retailers in France (Beta=-0.308, $p<0.001$) than in China (Beta=-0.204, $p<0.001$). Thus, H5.1a is confirmed. Similarly, we also find that there is a stronger positive effect of perceived importance of privacy concerns on consumer personal perceived risk with e-retailers in France (Beta=-0.408, $p<0.001$) than in China (Beta=-0.189, $p<0.01$). H5.1b is therefore confirmed.

In addition, there is a stronger positive effect of perceived importance of security protection

from a retailer on consumer non-personal perceived risk with e-retailers in France (Beta=-0.262, $p<0.05$) than in China (not significant). Thus, H5.2a is confirmed and H5.2b is not confirmed.

There is a stronger negative effect of perceived importance of reputation on consumer non-personal perceived risk with e-retailers in China (Beta=-0.488, $p<0.001$) than in France (Beta=-0.180, $p<0.01$). Thus, H5.3a is confirmed. Similarly, we also find that there is a stronger positive effect of perceived importance of privacy concerns on consumer personal perceived risk with e-retailers in China (Beta=-0.369, $p<0.001$) than in France (Beta=-0.241, $p<0.01$). H5.3b is therefore confirmed.

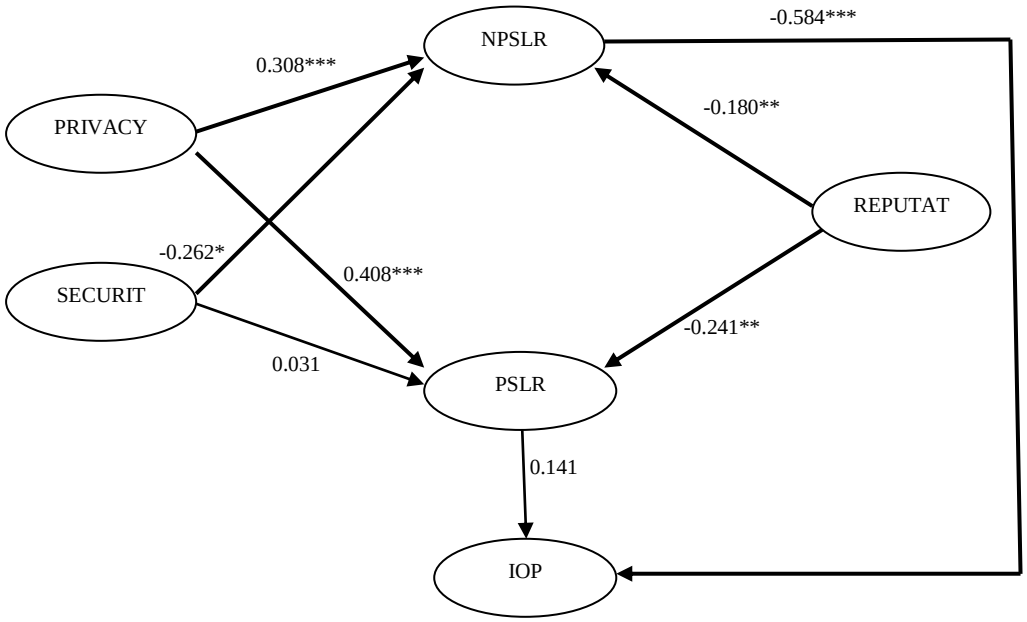
Figure 7.6. Standardized Structural Equation Parameter Estimates for the Chinese Sample



Notes:

Goodness-of-fit : $\chi 2$ = 310.510, df = 162, p = 0.000, RMSEA = 0.069, GFI = 0.860, CFI = 0.910, NFI =0.831, AGFI = 0.819, IFI=0.912.
* p = 0.05, ** p = 0.01, *** p = 0.001;
Privacy concern=PRIVACY; Security protection=SECURIT; Reputation=REPUTAT; Perceived Non-Personal Risk=NPSLR; Perceived Personal Risk= PSLR; Intention to Repurchase=IOP

Figure 7.7. Standardized Structural Equation Parameter Estimates for the French Sample



Notes:

Goodness-of-fit : $\chi 2$ = 318.172, df = 162, p = 0.000, RMSEA = 0.066, GFI = 0.877, CFI = 0.912, NFI =0.838, AGFI = 0.840, IFI=0.913.
* p = 0.05, ** p = 0.01, *** p = 0.001;
Privacy concern=PRIVACY; Security protection=SECURIT; Reputation=REPUT; Perceived Non-Personal Risk=NPSLR; Perceived Personal Risk= PSLR; Intention to Repurchase=IOP

Table 7.5. Hypotheses and Results

Hypotheses	Results
Privacy Concern and perceived risk	
H1.1: Perceived privacy concerns related to website retailers will have a negative effect on Chinese consumer perception of (a) non-personal risk, (b) personal risk.	H1.1a is confirmed H1.1b is confirmed
H1.2: Perceived privacy concerns related to website retailers will have a negative effect on French consumer perception of (a) non-personal risk, (b) personal risk.	H1.2a is confirmed H1.2b is confirmed
Security Protection and perceived risk	
H2.1: Perceived security protection from a retailer's website will have a negative effect on Chinese consumer perception of (a) non-personal risk, (b) personal risk.	H2.1a is not confirmed H2.1b is confirmed
H2.2: Perceived security protection from a retailer's website will have a negative effect on French consumer perception of (a) non-personal risk, (b) personal risk.	H2.2a is confirmed H2.2b is not confirmed
Reputation and perceived risk	
H3.1: Good website retailer reputation will have a negative effect on Chinese consumer perception of (a) non-personal risk, (b) personal risk.	H3.1a is confirmed H3.1b is confirmed
H3.2: Good website retailer good reputation will have a negative effect on French consumer perception of (a) non-personal risk, (b) personal risk.	H3.2a is confirmed H3.2b is confirmed
Cultural Influence-The Level of Chinese and French Consumers' Perceived Risk	
H4.1: Chinese online consumers perceive higher level of non-personal perceived risk than French consumers.	H4.1 is not confirmed
H4.2: Chinese online consumers perceive higher level of personal perceived risk than French consumers.	H4.2 is not confirmed

Table 7.5. Hypotheses and Results (continued)

Hypotheses	Results
Cultural Influence- The Cultural Effect on Importance of Perceived Risk Determinants	
H5.1: There will be a stronger positive effect of perceived importance of privacy concern on consumer perception of (a) non-personal risk and (b) personal risk in e-retailers in a collectivist culture (China) than in an individualist culture (France).	H5.1a is confirmed H5.1b is confirmed
H5.2: There will be a stronger negative effect of perceived importance of security protection on consumer perception of (a) non-personal risk and (b) personal risk in e-retailers in a collectivist culture (China) than in an individualist culture (France).	H5.2a is confirmed H5.2b is not confirmed
H5.3: There will be a stronger positive effect of perceived importance of reputation on consumer perception of (a) non-personal risk and (b) personal risk in e-retailers in a collectivist culture (China) than in an individualist culture (France).	H5.3a is confirmed H5.3b is confirmed
Perceived Risk and Intention to Repurchase	
H6.1: Perception of (a) non-personal risk, (b) personal risk will have negative effects on the online Chinese consumer's intention to repurchase from the website retailer.	H6.1a is confirmed H6.1b is confirmed
H6.2: Perception of (a) non-personal risk, (b) personal risk will have negative effects on the online French consumer's intention to repurchase from the website retailer.	H6.2a is confirmed H6.2b is not confirmed

7.4 Discussion

This research was carried out to meet a number of objectives described in chapter 1, which were accomplished as follows:

Objective one: Proposing a theoretical model of online consumer perceived risk antecedents in an e-commerce context

The semi-structured in-depth interviews were conducted with 11 Chinese students and with 11 French students, who are online consumers and already purchase the cloth during the past six month. The interviews included five sections with a total of nine open ended questions.

In the first section, the questions were general and aimed to find out what the participants online shopping experience and how they think about online shopping. In the other four sections, a number of interview questions were designed to explore their concerns about online shopping and which factors determine their online shopping concerns. The aim was to assess whether these variables have sufficient explanatory power in the way the consumer perceive the online shopping risks.

The participants were encouraged to speak out one of their online shopping experiences during the past three months. From their stories, we tried to find out what were their concerns during this online shopping experience, which factors made them worry, and what is the effective way to reduce those worries. Interview answers were transcribed and analyzed through textual analysis, which involves coding all the answers given by participants and classifying words under main groups. The frequency of the actual words and their synonyms that were used by the participants to answer the questions helped to identify patterns and relationships and to distinguish differences and similarities within responses.

We find that privacy concerns, security protection, and reputation are considered by the interviewees as the first three determinants that might influence perceived risk. Interestingly, we find that Chinese respondents are more concerns about e-retailers' reputation than French respondents. On the other hand, French interviewees are more susceptible to privacy concerns

and security protection from e-retailers.

With regard to the risk dimensions perceived by Chinese and French interviewees, we find that the importance of risk dimensions to Chinese participants is different from that to French participants. Table 5.2 presents the times that risk dimensions are mentioned by interviewees for buying a clothing product on the Internet. Compared to personal perceived risks, non-personal perceived risks are considered more serious by both Chinese and French online shoppers.

For Chinese online shoppers, among the seven perceived risks, performance risk associated with the product is ranked first as predominant risk dimension. Dimensions such as source risk, delivery risk and financial risk associated with online shopping constitute major risks in the purchase of a clothing product on the Internet. Finally, the two personal perceived risks, that is, social risk and psychological risk were far below the other dimensions.

The results based on Chinese participants are different from those based on French participants, although French online shoppers also perceived more non-personal than personal, where the ranking of source risk and privacy risk by Chinese e-shoppers is similar to that of French e-shoppers. Differing from Chinese online consumers, French online shoppers ranked as first their preoccupation with privacy risk associated with personal information, while delivery risk is considered not as much as important than Chinese consumers.

The last finding, in particular, concerns about the relation perceived risk and future intention to purchase on the same commercial site. 91% of the interviewees (except two French participants are not sure about their response) have reported that their concerns about online shopping on one site have an influence on the future online shopping on this same site.

Then we tested the influence of the determinants on both non-personal and personal perceived risk and the impact of non-personal and personal perceived risk on consumers' intention to repurchase on the same website in two structural equation models for Chinese sample and French sample. We find that the role of perceived risk determinants (privacy concerns, security protection, and reputation) on perceived risk in online shopping varies

across cultures. Depending on cultural differences, privacy concerns, security protection, and reputation have different effects on both consumer perception of non-personal risk and personal risk. Members of a collectivist culture (i.e., China) are more likely to share their opinions and attitudes (Kim, 2008). In contrast to collectivists, people in an individualistic culture (i.e., France) are more likely to seek information by themselves from direct and formal sources. Members of an individualist culture are somewhat separate from social context (Kim, 2008). Therefore, reputation is more valued in collectivist cultures (China), while privacy concerns and security protection are more valued in individualist cultures (France).

Objective two: Testing the proposed model empirically using cross-cultural data

First, regarding the T-test scores of perceived non-personal risk and personal risk for the French and Chinese samples, it is interesting to note that both the Chinese and French respondents perceive low levels of non-personal and personal risk regarding their online clothing purchases (the scores of both samples < 3), but the Chinese respondents perceive higher non-personal risk (M=2.8928) than the French respondents (M=2.2411) and higher personal risk (M=2.7230) than the French respondents (M=2.2963).

The phenomenon that the participants from both countries have a low level of risk may be explained by the development of e-commerce in both countries and that all of the participants have a relatively high level of online clothing shopping experience. According to Pavlou and Gefen (2005), a buyer's own past experience positively influences future intentions (Ganesan 1994), reduces perceived risk, and builds trust (Blau 1964, Gefen 2000, Luhmann 1979).

For the different scores of perceived risk between the two samples, we find that Chinese online shopping consumers perceive both higher non-personal risk and personal risk than French consumers. This difference may be explained by the cultural differences between China and France. Previous studies have demonstrated that culture greatly influences individual decision making, attitude formation, judgment, and other cognitive processes (e.g., McCort and Malhotra 1993; Radford et al. 1993). Culture affects not only how people respond to risk but also how they perceive and evaluate it (Choi and Geistfeld, 2004; Javenpaa and Tractinsky, 1999; Ueltschy et al., 2004). Uncertainty avoidance is considered

the most important cross-cultural perspective of perceived risk because this dimension mirrors a culture's tolerance or intolerance of uncertainty. Uncertainty avoidance refers to "the level of stress in a society in the face of an unknown future" (Hofstede, 2001, p. 29). In a country with weaker uncertainty avoidance, "not only familiar but also unfamiliar risks are accepted, such as changing jobs and starting activities for which there are no rules" (Hofstede, 2001, p. 148).

However, our findings are contrary to the previous studies. Hofstede's (1984) study demonstrates that China is a low uncertainty avoidance culture; whereas France was a high uncertainty avoidance culture. Accordingly, China, low-uncertainty avoidance cultures, is characterized as more risk taking (Hofstede, 2001), while France, a culture high in uncertainty avoidance would tend to be less risk-taking. Previous studies on cross-cultural perceived risk followed this perspective. For example, conducting a cross-cultural study on U.S., Jordan, and India, Kailani and Kumar (2011) indicated that in cultures where uncertainty avoidance is high perceived risk with internet, buying is also high, and this impacts internet buying negatively.

Whereas, we noted in our previous study that both China and France have high scores of Uncertainty Avoidance. China (M=5.8755) has even higher scores than France (M=5.2756) in fact. Wu (2006) also found that both the Taiwanese participants (M=5.47) and the U.S. participants (M=5.57) have high scores on uncertainty avoidance, which is consistent with our findings.

This cultural change can be explained by dramatic societal and economical changes in the past two decades in China. When the political, societal, and economic environments change, cultural values also change. For example, since China's decision in 1978 to begin its economic reforms and openness, China has experienced extraordinary institutional and economic change (Tisdell, 2009). Some changes have happened to China since it cannot avoid from the influence of globalization. This has altered its culture system substantially. The Chinese, especially the young, are influenced by Western culture. In addition, with the emergent of opportunism, the Chinese concerns more about the risks. This raises their Uncertainty Avoidance degree. Thus, China is less risk-taking than France, since the former becomes characterized as high-uncertainty avoidance cultures than the latter.

Moreover, our research, conducted in China and France, demonstrates the influence of privacy concerns, security protection, and reputation on the Internet, taking into consideration perceived risk. In light of our findings, e-marketers and e-retailers should be encouraged to address privacy concerns, security protection, and reputation issues and minimize risks. In addition, given the growth of information technology, rapid globalization, and the liberalization of e-commerce have intensified competition among e-retailers, the multinational Internet business managers should put special emphasis on privacy concerns, security protection, and reputation as viewed from the perspective of the cultural background of their target consumers.

McAllister (1995) proposed two different categories of determinants in the term of trust – affect-based determinants and cognition-based determinants. According to the author, affect orientation (such as, citizenship behavior and interaction frequency) is built on the emotional bonds between partners, whereas cognition-based orientation is built on the knowledge of role performance (such as, peer reliable role performance, cultural-ethnic similarity, and professional credentials).

Based on the contrasting role of affect-based versus cognition-based in the two different cultures, Chen et al. (1998) propose that affect orientation is more positively related to cooperation in a collectivist culture. People in an individualistic culture (i.e., France) are more likely to seek information by themselves from direct and formal sources. They are somewhat separate from their social context (Kim, 2008). Therefore, cognition-based perceived risk determinants, which are mainly related to consumer self-cognitive reasoning based on self-perception and self-interest through direct experiences and interactions with an e-retailer (i.e., security, and privacy protection policies, etc.), are more valued in the French culture than in the Chinese culture. Similarly, members of a collectivist culture (i.e., China) are more likely to share their opinions and attitudes (Kim, 2008). Therefore, affect-based PR determinants such as e-retailers' reputation are more valued in collectivist cultures.

Finally, for both the Chinese and the French sample, non-personal perceived risk has a significant effect on intention to repurchase. The less non-personal risk is perceived by both Chinese and French online consumers, the greater their intention to repurchase on that site. However, the effect of personal perceived risk was only found on Chinese consumers' intention to repurchase. The more Chinese consumers perceive personal risk from the

website, such as social risk and psychological risk, the less they will repurchase on that website.

Objective three: Pretesting Hofstede's Cultural Dimensions

Most of previous cross-cultural studies are based on Hofstede's national cultural dimensions (Moosmayer and Koehn, 2011; Jones and Alony, 2007; Ko et al., 2010; Ladbury and Hinsz, 2009; Weber and Hsee, 1998; Zheng et al., 2012). The researchers agree that national cultures endure over time and they are still valid as collective identities (Hofstede, 1991) and ignore the culture change. Given the rapid pace of globalization, turbulent economic and political changes, and the dominance of multinational corporations (Agarwal et al., 2010), cultural values may change over time.

We thus have retested Hofstede's (1984; 2001) studies in China and France. The results of the culture value of China and France are largely consistent of those of Hofstede (1984; 2001). We found that there are some slight differences between our finding s and those of Hofstede (1984; 2001), particularly on cultural dimension Uncertainty Avoidance and Power Distance. We found that China has high scores of Uncertainty Avoidance. China even has quite higher scores than France. This finding is totally opposite to that of Hofstede (1984; 2001). Regarding Power Distance, both China and France display a low level of Power Distance, whereas the Chinese and French value highly Power Distance in the study of Hofstede (1984; 2001). The French in the recent study value long-term orientation much more than those in Hofstede's. However, individualism/collectivism cultural dimension in China and France is consistent of that of Hofstede (1984; 2001), although some slight changes exist. In our study Chinese have a medium collectivism value rather than high collectivism, while the French seem to be more collectivistic than those in Hofstede's study (1984; 2001).

7.5 Summary

Following the design of the empirical testing procedures in chapter 5, this chapter focuses on the model testing. A total of 195 and 221 questionnaires respectively from Chinese and French respondents were used for the analysis. In the stage of descriptive analysis, data cleaning and missing values are conducted to prepare the data. Then, to ensure sample equivalence, we tested respondent demographic variables (e.g., gender, age, education). It was found that the French sample characteristics are basically consistent with the Chinese sample.

Then in the stage of data analysis, independent Sample t-tests were first performed for the mean values of the constructs between Chinese and French data sets to ensure the comparison of two different cultural groups (Kim, 2008). According to the results, the mean scores of all constructs between the Chinese and French data are significantly different (sig. <0.05).

To ensure the appropriateness of the instrument, it was tested for content validity, reliability, construct validity, and convergent validity of measurement model before structural model testing (Kim, 2008). Exploratory factor analysis and Cronbach's alpha test were conducted to assess the factor loadings and reliability of the constructs. First, exploratory factor analysis and Cronbach's alpha test were conducted to assess the factor loadings and reliability of the constructs. After two items (PRIVACY1 and SECURIT4) were eliminated, KMO (Kaiser-Meyer-Olkin test) of 0.815 and 0.781 for each Chinese and French sample attest to good correlation between the items. Bartlett's Test of Spheritcity is significant. 72.01% of total variance is explained for the Chinese data set and 67.727% of total variance is explained for the French data set. We then looked at each construct to examine the reliability using Cronbach's alpha and to check the scales' dimensionality using factor loadings of the items.

After that, we conducted respectively confirmatory factor analysis (CFA) for the French sample and the Chinese sample using AMOS 20 to assess the convergent and discriminant validity of all constructs. The constructs (i.e., reputation, non-personal perceived risk, personal perceived risk and intention to repurchase) were modeled as first-order correlated factors. Convergent and discriminant validity are supported.

Furthermore, measurement invariance was tested to ensure items and factorial structure of a survey instrument is equivalent across French and Chinese cultural groups. Five steps are followed: Step 1-The baseline model; Step 2-Testing for the validity of the Hypothesized Model across France and China; Step 3-Testing for Invariance of the Fully Constrained Model across France and China; Step 4-Partial Measurement Invariance; Step 5-Testing for Invariance of Structure Model across France and China. Our measurements are partial measurement invariant.

Finally, structural equation model with the maximum likelihood estimation method are employed to test all the hypothesized relationships.

For the Chinese model, we found that privacy concerns have positive effects on consumer perception of non-personal risk and personal risk with coefficients of 0.204 ($p<0.001$), and 0.189 ($p<0.01$). H 1.1a and H 1.1b are therefore confirmed. Security protection from a retailer's website has positive effects on consumer perception of personal risk with coefficients of -0.185 ($p<0.01$). H2.1b is therefore confirmed. Reputation in the Chinese model has significant negative effects on both consumer non-personal risk and personal risk perception of an e-retailer, with path coefficients of -0.488 ($p<0.001$), and -0.369 ($p<0.001$) respectively. H3.1a and H3.1b are confirmed. In addition, both non-personal perceived risk (Beta=-0.264, $p<0.05$) and personal perceived risk (Beta=-0.249, $p<0.05$) have significant negative impact on intention to repurchase. Thus, our data supports H6.1a and H6.1b.

On the other hand, for the French model, it was found that privacy concerns also have positive effects on French consumer perception of non-personal risk and personal risk with path coefficients of -0.308 ($p<0.001$) and -0.408 ($p<0.01$) respectively. Thus, H1.2a and H1.2b are confirmed. Concerning the relationship between security protection and perceived risk, we found that Security protection from a retailer's website has positive effects on consumer perception of non-personal risk with coefficients of -0.262 ($p<0.05$). H2.1b is therefore confirmed. Reputation also has negative effects on consumer perception of non-personal risk and personal risk with path coefficients of -0.180 ($p<0.001$) and -0.241 ($p<0.01$) respectively. Thus, H3.2a and H3.2b are confirmed. There is a negative relation between non-personal risk and intention to repurchase. H6.2a is thus confirmed.

The results of multi-group analysis and structural model comparison confirm that there are differences in the effect of privacy concerns, security protection, and reputation on both non-personal risk and personal risk perception between the online consumers in a collectivist culture (China) and those in an individualist culture (France). There is a stronger positive effect of perceived importance of privacy concerns on consumer non-personal perceived risk with e-retailers in France than in China. Thus, H4.1a is confirmed.

Similarly, we also found that there is a stronger positive effect of perceived importance of privacy concerns on consumer personal perceived risk with e-retailers in France than in China. H4.1b is therefore confirmed. In addition, there is a stronger positive effect of perceived importance of security protection from a retailer on consumer non-personal perceived risk with e-retailers in France than in China. Thus, H4.2a is confirmed.

There is a stronger negative effect of perceived importance of reputation on consumer non-personal perceived risk with e-retailers in China than in France. Thus, H4.3a is confirmed. Similarly, we also found that there is a stronger positive effect of perceived importance of privacy concerns on consumer personal perceived risk with e-retailers in China than in France. H5.3b is therefore confirmed.

Regarding the T-test scores of perceived non-personal risk and personal risk for the French and Chinese samples, it is interesting to note that both the Chinese and French respondents perceive low levels of non-personal and personal risk regarding their online clothing purchases (the scores of both samples < 3), but the Chinese respondents perceive higher non-personal risk (M=2.8928) than the French respondents (M=2.2411) and higher personal risk (M=2.7230) than the French respondents (M=2.2963).

The phenomenon that the participants from both countries have a low level of risk may be explained by the development of e-commerce in both countries and that all of the participants have a relatively high level of online clothing shopping experience. According to Pavlou and Gefen (2005), a buyer’s own past experience positively influences future intentions (Ganesan, 1994), reduces perceived risk, and builds trust (Blau, 1964; Gefen, 2000; Luhmann, 1979).

For the different scores of perceived risk between the two samples, we find that Chinese online shopping consumers perceive both higher non-personal risk and personal risk than French consumers. This difference may be explained by the cultural differences between China and France. Uncertainty avoidance is considered the most important cross-cultural perspective of perceived risk because this dimension mirrors a culture's tolerance or intolerance of uncertainty. In a country with weaker uncertainty avoidance, "not only familiar but also unfamiliar risks are accepted, such as changing jobs and starting activities for which there are no rules" (Hofstede, 2001, p. 148). Hofstede's (1984) study demonstrates that China is a low uncertainty avoidance culture; whereas France was a high uncertainty avoidance culture. Accordingly, China, low-uncertainty avoidance cultures, is characterized as more risk taking (Hofstede, 2001), while France, a culture high in uncertainty avoidance would tend to be less risk-taking. Whereas, we noted in our previous study that both China and France have high scores of Uncertainty Avoidance. China (M=5.8755) has even higher scores than France (M=5.2756) in fact.

CHAPTER 8 CONCLUSION

8.1 Theoretical and Managerial Implications

8.1.1 Theoretical and Methodological Implications

From a theoretical standpoint, our study provide a multi-group model explaining key psychological processes of the influence of privacy concerns, security protection, and reputation on intention to repurchase online via perceived risk. In addition, repetition of purchase is critical for e-commerce and the risk remains after the initial purchase (Keh and Sun, 2008). Thus, from a theoretical perspective, it is useful to better understand post-purchase risk.

With increasing firm globalization, the need for a clearer comprehension of cultural influences on personal and non-personal risks cannot be overemphasized. We combined the national culture dimensions from Hofstede's studies in our models. This study identifies two national cultural types: individualistic and collectivist. The study also empirically tests the model using cross-cultural data collected from two countries typically representing individualistic and collectivistic cultures. The results of the study not only show that privacy concerns, security protection, and reputation plays an important role in business-to-consumer e-commerce transactions via perceived risk across cultures but also clearly support the theoretical argument that culture affects the influence of privacy concerns, security protection, and reputation on perceived risk. The findings of the study improve our understanding of online consumer privacy concerns, how website retailer security protection is perceived by consumers, and the impact of website retailer reputation across cultures.

Furthermore, in terms of the measurement equivalence and the data analysis methodology, this study employed a multi-group SEM analysis using AMOS in the IS research area. This is a road less traveled, according to Byrne (2004, p. 272). In cross-group research, measurement

equivalence issues (i.e., whether measurement accuracy, reliability and validity are achieved across samples) are critical (Byrne, 2004). Thus, multiple group SEM analysis has been suggested as a reliable method for determining measurement equivalence if a grouping variable (i.e., culture in this study) affects a structural equation model across groups(Steenkamp and Baumgartner, 1998; Kim, 2008).However, the use of this analysis is limited in the IS area. To our knowledge, there are very few papers published using multi-group SEM analysis in IS journals.

We used Hofstede (1998; 2001) as a starting point, despite the fact that this work has been criticized as outdated because the empirical studies took place in 1967-1973 (Soares, 2004) and is thus too old to be of any modern value, particularly with today's rapidly changing global environments, globalization and convergence (Jones and Alony, 2007). However, Hofstede (2001) suggests that cultural changes fundamental enough to invalidate his initial country index scores will not likely be recognizable for a long time, perhaps not before 2100.

We retested Hofstede's (1984; 2001) studies in China and France and our results are largely consistent with his (1984; 2001). There are, however, some slight differences between the two studies, particularly related to the cultural dimensions Uncertainty Avoidance and Power Distance. We found that China has high Uncertainty Avoidance scores. China even has much higher scores than France. This finding is totally opposite to that of Hofstede (1984; 2001). Regarding Power Distance, both China and France display a low level of Power Distance, whereas the Chinese and French highly value Power Distance in Hofstede's study (1984; 2001). In our recent study, the French value long-term orientation much more than the French sample in Hofstede's earlier work.

However, the cultural dimension individualism/collectivism in China and France is consistent Hofstede's findings (1984; 2001), although some slight differences exist. In our study, the Chinese have a medium collectivism value rather than a high one, while the French seem to be more collectivistic than those in Hofstede's study (1984; 2001). This retest has provided insights into shifts of cultural values since Hofstede conducted his original study. Therefore, we suggest that cross-culture researchers should use Hofstede's five cultural dimensions with caution. From a managerial perspective, we recommend that those individuals working in the international environment take into consideration cultural differences when they make

decisions or develop strategies related to their international markets.

8.1.2 Managerial Implications

In addition to theoretical and methodological implications, our study contributes to managerial development by providing important insights for multinational online business managers.

First, we find that the Chinese respondents perceive higher non-personal risk than the French respondents and higher personal risk than the French respondents. In light of these findings, e-marketers and e-retailers should be encouraged to minimize consumers' non-personal perceived risks, predominantly Chinese consumers' non-personal risks, particularly in their efforts to propose more information about clothing products. Consumers need certain types of information to reduce potential uncertainty/risk (Weinberg 2001). For example, 3D pictures, the details about clothing size, material components and product comparison. This information enables buyers to develop a more complete idea of the quality and outward appearance of the product. In addition, commercial sites need to stress money-back guarantee and to provide good service to consumers to enhance and support positive shopping experiences on the Internet. Payment security should also be paid attention to by e-marketers. This risk dimension is usually considered as one of the main concerns of online shoppers, although payment systems have been developed and largely accepted by e-shoppers in online marketplaces. Finally, e-marketers should also provide specific strategies to Chinese consumers' personal risk, since their personal risk has a negative effect on intention to repurchase.

Second, it is important for international managers and marketers to be aware that privacy concerns, security protection, and reputation are the critical factors that influence consumer online repurchase intention. In addition, online perceived risk is an important issue in e-commerce. Our research, conducted in China and France, demonstrates the influence of privacy concerns, security protection, and reputation on the Internet, taking into consideration

perceived risk. In light of our findings, e-marketers and e-retailers are encouraged to address privacy concerns, security protection, and reputation issues and to minimize risks.

Third, the growth of information technology, rapid globalization, and liberalization of e-commerce has intensified competition among e-retailers. Increasingly, firms are expanding their business operations beyond their domestic markets. Therefore, it is imperative that firms understand and cope with cultural differences (Keh and Sun, 2008). In light of the findings from this study, multinational Internet business managers should place special emphasis on privacy concerns, security protection, and reputation as viewed from the perspective of the cultural background of their target consumers.

Last but not least, the comparison between China and France deserves special attention from the managerial perspective, due to increasing commercial cooperation between China and France and the resulting potential market. The majority of recent cross-cultural studies on perceived risk have been carried out on China and the United States as the two major players in today's world economy, (Hsee and Weber, 1997; 1999; Yates et al., 1996; Yates et al., 1997; Weber and Hsee, 1998; Weber et al., 1998; Yates et al., 1998). The European Union as another major world player and should be given equal attention. However, little empirical research has been conducted focusing on the European Union.

China and France were selected because previous cross-cultural research reported that the two nations represent opposite values in terms of various cultural dimensions (Hall, 1976; Hofstede, 2001). More specifically, one sub-dimension scale (individualism/collectivism) of Hofstede's cultural dimensions clearly shows large differences between the two countries. Also, China has been considered one of the countries that has shown the fastest information technology adoption trends internationally, whereas France represents the largest domestic online retail market. In future research projects, we expect to find some cross-national differences in the antecedents and consequences of perceived risk in online shopping. Thus, it is interesting to raise the question of whether cross-cultural differences in risk perception exist between China and France. The results of this comparative study between China and France may provide evidence or reveal new points of view to complement the results of previous studies on cultural factors. We consider a study replicating previous works to be valuable in an attempt to understand whether findings can be generalized to different

populations, and to establish support beyond one-shot studies, particularly given the narrow focus of prior research on only a few countries.

Given the massive scope of China's e-commerce market and its potential, the results of the present study intend to help companies, especially French companies, better understand the risk perceived by Chinese online consumers based on cultural perspectives, and to increase marketing efficiency to reduce the perceived risk and retain consumer loyalty to repurchase. Our findings also have important implications for marketing practitioners working in China, especially for employees of multinational corporations that enter China and that are not yet familiar with the Chinese environment.

8.2 Limitations and Future Research Directions

This research has some limitations associated with generalizing its findings.

First, random sampling was not employed consistently throughout the research. This study used a non-probability sampling technique. The study used responses from students aged between 20 and 35. Although it was found that the sample was representative for the target population, generalization of the results should be treated with caution beyond the scope of this sample. Future empirical work is needed to demonstrate that these findings are not unique to this particular sample.

Second, the study provides an explanation in cross-cultural perspectives on why Chinese online consumers perceive higher non-personal and personal perceived risk than French consumers. Uncertainty avoidance is considered the most important cross-cultural perspective of perceived risk because this dimension mirrors a culture's tolerance or intolerance of uncertainty. According to Hofstede (2001), low-uncertainty avoidance cultures are characterized by "more risk taking" (p. 132) and "preference for tasks with uncertain

outcomes and calculated risks" (p. 169). Hofstede's (1984) study demonstrated that China was a low uncertainty avoidance culture; whereas France was a high uncertainty avoidance culture. However, we noted in our previous study that both China and France have high scores of Uncertainty Avoidance. China has even higher scores than France in fact. Accordingly, Chinese consumers are supposed to perceived higher perceived risk than French consumers since the former are less risk tolerant than the latter. However, our explanations didn't go further to provide an empirical support to the significantly negative effect of uncertainty avoidance index on perceived risk in online shopping. A further study is thus needed to verify this causal relationship.

Third, our research is limited to using a single product category: a clothing product. A future study is needed to collect data from other product categories to replicate the findings.

Forth, this study clearly does not include all variables potentially related to Internet perceived risk. In our study, we just discussed consumer perception of purchasing risk based on privacy concerns, security protection, and cultural dimensions. However, other variables exist and should be tested in future studies.

Fifth, this study considered only two countries (China and France) that have distinct national cultures and that we consider as representatives of two cultural types. Because there are more than 100 countries in the world, a future study is needed to collect data from other countries that have similar culture types to replicate the findings.

Finally, given that the main instrument used to measure the constructs in this research is self-reported, the respondents' answers to their attitudes might be biased by their limited memory. Future research could develop more objective measures, such as an analysis of actual consumer purchase practices on a real e-commerce site.

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APPENDIX

Appendix A. Questionnaire Regarding Culture Values

Appendix A-1. Questionnaire Regarding Culture Values in English Version

Hello,

We are currently conducting a study about culture values. Please help us by completing this questionnaire. We are interested in learning about your cultural values and would like you to share your thoughts because they are important to our research.

We confirm the total confidentiality of your personal information and your answers. Please note, if you choose to respond to our questionnaire, you have the right to stop at any time if you choose to do so. Lastly, we would like to point out that there are no right or wrong answers to the questions. We are interested in your personal views.

We will be happy to make the results of the study available to you when it is completed. If you want a copy of the survey results, please let us know by sending us an e-mail (lilizheng19@yahoo.fr).

Thank you for your time and co-operation. The survey will take about 10 minutes. If you have any questions, please let us know.

Culture values	strongly disagree						strongly agree
1. It is important to have instructions spelled out in detail so that I always know what I'm expected to do.	1	2	3	4	5	6	7
2. It is important to closely follow instructions and procedures.	1	2	3	4	5	6	7
3. Rules and regulations are important because they inform me of what is expected of me.	1	2	3	4	5	6	7
4. Standardized work procedures are helpful.	1	2	3	4	5	6	7
5. Instructions for operations are important.	1	2	3	4	5	6	7
6. Individuals should sacrifice self-interest for the group.	1	2	3	4	5	6	7
7. Individuals should stick with the group even through difficulties.	1	2	3	4	5	6	7
8. Group welfare is more important than individual rewards.	1	2	3	4	5	6	7
9. Group success is more important than individual success.	1	2	3	4	5	6	7
10. Individuals should only pursue their goals after considering the welfare of the group.	1	2	3	4	5	6	7
11. Group loyalty should be encouraged even if individual goals suffer.	1	2	3	4	5	6	7
12. People in higher positions should make most decisions without consulting people in lower positions.	1	2	3	4	5	6	7
13. People in higher positions should not ask people in lower positions too frequently.	1	2	3	4	5	6	7
14. People in higher positions should avoid social interaction with people in lower positions.	1	2	3	4	5	6	7
15. People in lower positions should not disagree with decisions by people in higher positions.	1	2	3	4	5	6	7
16. People in higher positions should not delegate important tasks to people in lower positions.	1	2	3	4	5	6	7
17. It is more important for men to have a professional career than it is for women.	1	2	3	4	5	6	7
18. Men usually solve problems with logical analysis; women usually solve problems with intuition.	1	2	3	4	5	6	7
19. Solving difficult problems usually requires an active, forcible approach, which is typical of men.	1	2	3	4	5	6	7
20. There are some jobs that a man can always do better than a woman.	1	2	3	4	5	6	7
21. Careful management of money is important	1	2	3	4	5	6	7
22. Going on resolutely in spite of opposition is important.	1	2	3	4	5	6	7
23. Personal steadiness and stability is important.	1	2	3	4	5	6	7
24. Long-term planning is important.	1	2	3	4	5	6	7
25. Giving up today's fun for success in the future is important.	1	2	3	4	5	6	7
26. Working hard for success in the future is important.	1	2	3	4	5	6	7

Appendix A-2. Questionnaire Regarding Culture Values in Chinese Version

您好！

我是一名就读于法国格勒诺布尔二大管理专业的博士生，目前正在进行一项关于文化价值的研究。希望您能帮助我填写这份问卷。

本问卷采用无记名方式，您尽可以放心填写真实想法, 您的所有信息绝对保密。如果您接受参与问卷调查，您有权力随时停止回答问卷。最后，请注意问卷没有标准答案，您所给出的答案没有对错之分，问卷的目的不是为了测试您的知识程度，而是想了解您的文化价值观。

感谢您的积极参与支持！问卷大约需要 10 分钟。如果您有任何疑问，请联系我。
如果您想要一份调查结果，请通过电子邮件联系我 (lilizheng19@yahoo.fr)。

文化价值观	完全不同意						完全同意
1. 详尽明确的指示很重要，这样我可以知道我应该怎么去做。	1	2	3	4	5	6	7
2. 我们应该按照指示/指令及流程做事。	1	2	3	4	5	6	7
3. 法规和规则很重要，这样我可以知道我应该做什么。	1	2	3	4	5	6	7
4. 我认为标准化的工作流程是有益的。	1	2	3	4	5	6	7
5. 操作指令是重要的。	1	2	3	4	5	6	7
6. 私人利益应该让步于相关群体利益。	1	2	3	4	5	6	7
7. 即使在困难情况下，个人也应该跟随群体。	1	2	3	4	5	6	7
8. 相关群体利益比个人回报或奖励更重要。	1	2	3	4	5	6	7
9. 相关群体的成功比个人的成功更重要。	1	2	3	4	5	6	7
10. 个人应该先考虑相关群体的利益，然后追求个人目标。	1	2	3	4	5	6	7
11. 我们应该鼓励个人对相关群体的忠诚，即使个人的目标受到了损害。	1	2	3	4	5	6	7
12. 处于更高地位（职位）的人应该多做决定，不用咨询地位（职位）较低的人。	1	2	3	4	5	6	7
13. 更高地位（职位）的人不应该过于频繁的询问地位（职位）较低的人。	1	2	3	4	5	6	7
14. 更高地位（职位）的人应该避免和地位（职位）较低的人进行社交活动。	1	2	3	4	5	6	7
15. 地位（职位）较低的人不应该反对地位（职位）较高的人的决策。	1	2	3	4	5	6	7
16. 地位（职位）较高的人不应该授权给地位/职位较低的人重要的工作。	1	2	3	4	5	6	7
17. 相比于女性，职业生涯对男性来说更重要。	1	2	3	4	5	6	7
18. 男性通常通过逻辑分析解决问题；女性通常通过直觉解决问题。	1	2	3	4	5	6	7
19. 男性的代表性特征是通过主动的，强有力的方法解决难题。	1	2	3	4	5	6	7
20. 有一些工作男性总是做的比女性好。	1	2	3	4	5	6	7
21. 精心管理钱是重要的。	1	2	3	4	5	6	7
22. 即使遇到反对（阻力），也应该继续坚持下去。	1	2	3	4	5	6	7
23. 个人的持续和稳定是重要的。	1	2	3	4	5	6	7
24. 长远规划是重要的。	1	2	3	4	5	6	7
25. 我们应该为了明天的成功放弃今天的享乐。	1	2	3	4	5	6	7
26. 为了将来的成功现在努力工作是重要的。	1	2	3	4	5	6	7

Appendix A-3. Questionnaire Regarding Culture Values in French Version

Bonjour,

En vue de préparer une thèse de doctorat en sciences de gestion à Université Pierre-Mendès-France, Grenoble, nous conduisons actuellement une recherche au sujet de la culture.
Merci de nous aider en remplissant ce questionnaire. Votre valeurs culturelles nous intéressent et nous souhaitons partager vos réflexions, car elles sont importantes pour notre recherche.

Nous vous assurons de la confidentialité totale de vos réponses. Les informations que vous apporterez n'ont d'intérêt que pour la recherche scientifique. Si vous choisissez de répondre à notre questionnaire, vous pouvez bien entendu arrêter à tout moment. Enfin, nous tenons à souligner qu'il n'y a pas de bonnes ou de mauvaises réponses aux questions. C'est votre opinion personnelle qui enrichira notre recherche.

Environ dix minutes suffiront pour compléter ce questionnaire. Si vous avez des questions, n'hésitez pas à nous contacter. C'est avec plaisir que nous vous répondrons. Nous vous remercions pour votre confiance et le temps que vous nous accorderez. Pour recevoir les résultats de cette enquête adressez simplement un e-mail à lilizheng19@yahoo.fr.

Les valeurs culturelles	pas du tout d'accord						tout à fait d'accord
1. Il est important d'avoir des instructions détaillées pour que je sache toujours ce que je dois faire.	1	2	3	4	5	6	7
2. Il est important de suivre soigneusement les instructions et les procédures.	1	2	3	4	5	6	7
3. Les règles et règlements sont importants car ils m'informent de ce qu'on attend de moi.	1	2	3	4	5	6	7
4. Les procédures de travail normalisées sont utiles.	1	2	3	4	5	6	7
5. Les instructions pour les opérations sont importantes.	1	2	3	4	5	6	7
6. Les individus doivent-ils se sacrifier pour l'intérêt du groupe auquel ils appartiennent.	1	2	3	4	5	6	7
7. Les individus devraient adhérer au groupe auquel ils appartiennent, même si cela est difficile.	1	2	3	4	5	6	7
8. Le bien-être du groupe auquel ils appartiennent est plus important que les satisfactions individuelles.	1	2	3	4	5	6	7
9. Les succès du groupe auquel ils appartiennent est plus important que la réussite individuelle.	1	2	3	4	5	6	7
10. Les individus devraient poursuivre leurs objectifs personnels après avoir considéré le bien-être du groupe auquel ils appartiennent.	1	2	3	4	5	6	7
11. La fidélité envers le groupe auquel on appartient devrait être encouragée, même si les objectifs individuels doivent en souffrir.	1	2	3	4	5	6	7
12. Les personnes occupants des postes élevés doivent décider sans consulter les personnes occupantes des positions inférieures.	1	2	3	4	5	6	7
13. Les personnes occupants des postes élevés ne doivent pas poser des questions aux personnes subalternes.	1	2	3	4	5	6	7
14. Les personnes occupants des postes élevés ne doivent pas se mêler avec les personnes subalternes.	1	2	3	4	5	6	7
15. Les personnes subalternes ne doivent pas contester les décisions prises par les personnes occupant des postes élevés.	1	2	3	4	5	6	7
16. Les personnes occupants des postes élevés ne devraient pas déléguer des tâches importantes aux personnes dans des positions inférieures.	1	2	3	4	5	6	7
17. Il est plus important pour les hommes que pour les femmes d'avoir une carrière professionnelle.	1	2	3	4	5	6	7
18. Les hommes souvent résolvent les problèmes avec une approche logique, les femmes souvent résolvent les problèmes avec l'intuition.	1	2	3	4	5	6	7
19. Les hommes souvent résolvent les problèmes difficiles avec une approche virile et puissante.	1	2	3	4	5	6	7
20. Il y a des emplois que l'homme réalise toujours mieux que la femme.	1	2	3	4	5	6	7
21. Il est important de gérer prudemment son argent.	1	2	3	4	5	6	7
22. Il est important d'affirmer ses positions face à des contradictoires.	1	2	3	4	5	6	7
23. L'équilibre et la stabilité personnelle sont importants.	1	2	3	4	5	6	7
24. Planifier à long terme est important.	1	2	3	4	5	6	7
25. Sacrifier les plaisirs d'aujourd'hui pour réussir plus tard est important.	1	2	3	4	5	6	7
26. Travailler dur pour réussir dans l'avenir est important.	1	2	3	4	5	6	7

Appendix B. Reliability and Factor loadings of the Cultural Constructs Used in the Research for Chinese and French Sample

	Chinese Sample		French Sample	
	Factor Loadings	**Cronbach's alpha**	**Factor Loadings**	**Cronbach's alpha**
Uncertainty Avoidance (UA)		0.849		0.787
1. It is important to have instructions spelled out in detail so that I always know what I'm expected to do.	0.658		0.766	
2. It is important to closely follow instructions and procedures.	0.776		0.789	
3. Rules and regulations are important because they inform me of what is expected of me.	0.779		0.711	
4. Standardized work procedures are helpful.	0.823		0.615	
5. Instructions for operations are important.	0.777		0.691	
Collectivism (COL)		0.857		0.811
1. Individuals should sacrifice self-interest for the group.	0.670		0.688	
2. Individuals should stick with the group even through difficulties.	0.725		0.607	
3. Group welfare is more important than individual rewards.	0.804		0.776	
4. Group success is more important than individual success.	0.823		0.749	
5. Individuals should only pursue their goals after considering the welfare of the group.	0.778		0.716	
6. Group loyalty should be encouraged even if individual goals suffer.	0.744		0.705	
Masculinity (MAS)		0.727		0.825
1. It is more important for men to have a professional career than it is for women.	0.723		0.537	
2. Men usually solve problems with logical analysis; women usually solve problems with intuition.	0.773		0.823	
3. Solving difficult problems usually requires an active, forcible approach, which is typical of men.	0.786		0.800	
4. There are some jobs that a man can always do better than a woman.	0.680		0.712	

Appendix B. Reliability and Factor loadings of the Cultural Constructs Used in the Research for Chinese and French Sample (continued)

	Chinese Sample		French Sample	
	Factor Loadings	**Cronbach's alpha**	**Factor Loadings**	**Cronbach's alpha**
Power Distance (PDI)		0.884		0.725
1. People in higher positions should make most decisions without consulting people in lower positions.	0.798		0.793	
2. People in higher positions should not ask people in lower positions too frequently.	0.676		0.851	
5. People in higher positions should not delegate important tasks to people in lower positions.	0.828		0.677	
Long-term Orientation (LTO)		0.821		0.557
1. Going on resolutely in spite of opposition is important.	0.734		0.692	
2. Long-term planning is important.	0.821		0.618	
3. Personal steadiness and stability is important.	0.838		0.560	
4. Working hard for success in the future is important.	0.821		0.564	

Appendix C. Interview Guideline

Appendix C-1. Interview Guideline in Chinese Version

采访纲要

访谈介绍：亲，你们好! 我们目前正在进行一个关于消费者网上购物的研究。这种一对一的访问是一种很常见的调研方法，它能够很好的帮助我们细致地了解到消费者的需求。您的支持非常重要，您的思想、感受和观点会对我们正在进行的研究提供很有价值的向导。整个访问大约需要 25 分钟。我们会对您的个人信息保密。如果您对我们的调查结果感兴趣的话，我们很乐意将最后的研究结果发给您。

一、初步问题：网上购物情况

目标：针对受访者探询其最近 3 个月网上购物情况，注意发现最频繁的网上购物的商品种类和受访者对网上购物风险的反应。

Q1: 我们可以先了解一下您网上购物的情况吗？比如您购买的物种类品、购物频率以及在网上购物年数等等。和我们谈一谈吧。

Q2: 能否说出几个您喜欢的网站？不喜欢在哪些网站上购物？为什么？*（针对受访者的语气、语调、身体语言等）你那么摇头想说明什么呢？当时哪方面的情况让你刚才长叹了一口气？*

Q3: 如果我是第一次网上购物，你对我的建议和忠告有哪些？

Q4: 您理想中的网上购物应该是什么样的？

二、网上购买与感知风险研究

目标：详细追问受访者当时感受, 探索感知风险对网上购物的影响。

Q5: 能否讲述一下您个人最近 3 个月内某一次网上购物经历？

Q6 : 你为什么会选择讲述这次网上购物经历？

如果 Q5 和 Q6 的答案不能帮助我们很好的了解受访者对网上购物感知风险的看法，尝试提问 Q7 和 Q8。

Q7: 您在网上购物时,付款前会有一些担心吗？有什么样的担心？汇款之后呢? 会有什么样的担心?

三、网上购物风险影响因素

目标：找出影响感知风险的因素，尤其是确定除文化因素之外的其他可以影响消费者感知风险的因素

Q8: 为什么您会有这样的担忧？你觉得这些担心是由什么（哪些因素）造成的？

Q9: 您认为怎样可以降低您的这些担忧？

四、感知风险和满意度，忠诚度的关系

目标：找出感知风险和满意度，忠诚度的关系

Q10：相对于传统购物方式，你觉得你的这些对网上购物的担忧会影响到您再次选择网上购买方式吗？会有怎样的影响？

五、结尾

关于网上购物这个话题，您还有什么需要提到和特别需要补充的吗？

快速小结

目标： 通过这样一个很快的小结，让受访者去确定。

今天我可不可以做出这样一个结论，关于这个问题，你的看法主要是这样，你觉得这样对吗？

六、个人信息：

性别

年龄

学历

Appendix C-2. Interview Guideline in Chinese Version

Guides d'entretien

Introduction: Actuellement doctorante en Gestion, je fais une enquête concernant l'achat sur Internet. L'entretien face-en-face est une méthode de recherche très commune, qui peut nous aider à comprendre leur demande. Votre soutien, vos réflexions et vos idées sont importants pour notre recherche. Nous vous confirmons la confidentialité totale de vos réponses et vous confirmons qu'elles ne seront communiquées à aucune tierce partie. Nous vous remercions pour votre temps et confiance. L'entretien durera environ 25 minutes. Nous avons le plaisir de vous envoyer les résultats par mail.

1. Questions préliminaires: achat en ligne
Objectif : Définir les produits les plus fréquemment achetés sur Internet ainsi que la réaction des interviewés vers la perception du risque perçu dans le cadre de l'achat en ligne en découvrant les expériences d'achat en ligne des interviewés pendant les trois mois précédents.

Q1 : Peut-on parler de vos achats sur Internet, par exemple, la catégorie de produit que vous achetez souvent en ligne, la fréquence d'achat sur Internet (combien de fois avez-vous acheté des produits sur Internet au cours des six derniers mois ?) et les années d'achat sur Internet (depuis combien de temps achetez-vous des produits sur Internet ?) etc.

Q2 : Pouvez-vous me citer vos sites web marchandise préférés? Pourquoi ? *(Faire attention au ton, l'intonation, et le langage corporel des interviewés)*

Q3: Si j'envisage de faire un achat sur Internet pour la première fois, qu'est-ce que vous pouvez me conseiller ?

2. Le risque perçu à l'égard de l'achat sur Internet
Objectif : Questionner en détail la perception des interviewés sur leurs expériences d'achat en ligne et explorer l'impact du risque perçu sur l'achat en ligne.

Q4 : Pourriez-vous me parler d'une de votre expériences d'achat sur Internet au cours des trois derniers mois ?

Q5 : Pourquoi avez-vous choisi de parler de cette expérience, mais pas d'autres ?

Si les réponses de Q5 et Q6 ne peuvent pas nous donner une bonne compréhension sur le risque perçu par des interviewés à l'égard de l'achat en ligne, essayer de poser des questions Q7 et Q8.

Q6 :Est-ce que vous êtes inquiets avant que vous payez en ligne ? Qu'est ce que vous craigniez? Est-ce que vous êtes inquiets après le paiement ?

3. Les facteurs qui peuvent influencer le risque perçu

Objectif : Identifier les facteurs qui ont une influence sur le risque perçu, en particulier déterminer les autres facteurs en plus du facteur culturel.

Q7 : Pourquoi avez-vous ces réserves ? Qu'est-ce qui fait naître ces réserves ?

Q8 : A votre avis, qu'est-ce qui pourrait vous réduire ces réserves ?

4. La relation entre le risque perçu et l'intention de ré-achat

Q9 : Pensez-vous que vos réserves sur l'achat en ligne peuvent influencer votre décision de ré-achat sur Internet ? De quelle façon le risque perçu influence votre décision de ré-achat ?

5. Conclusion
Nous avons parlé de l'achat sur Internet, est-ce que vous avez des points à rajouter sur ce sujet?

Résumé rapide
Objectif : une petite synthèse à confirmer par des interviewés.

Si j'ai bien compris vos réflexions sur le sujet est la suivante…

6. Les informations personnelles
Sexe
Age
Niveau d'études

Appendix D. Research Questionnaire

Appendix D-1. Research Questionnaire in English Version

Hello,

We are currently conducting a study about purchases on the Internet. If you have purchased a clothing product though a online retailer in the past six months, please help us by completing this questionnaire. We are interested in learning about your experience and would like you to share your thoughts because they are important to our research.

We confirm the total confidentiality of your personal information and your answers. Please note, if you choose to respond to our questionnaire, you have the right to stop at any time if you choose to do so. Lastly, we would like to point out that there are no right or wrong answers to the questions. We are interested in your personal views.

We will be happy to make the results of the study available to you when it is completed. If you want a copy of the survey results, please let us know by sending us an e-mail (lilizheng19@yahoo.fr).

Thank you for your time and co-operation. The survey will take about 15 minutes. If you have any questions, please let us know.

Step I: Screening

1. Have you ever purchased a clothing product through the website retailers? (If you answer "No", this is the end of the questionnaire)
□ Yes (Continue with Question 2) □ No (End of Questionnaire)

2. Are you French/Chinese?
□ Yes (Continue with Question 3) □ No (End of Questionnaire)

3. Have you ever lived away from France/China?
□ Yes Where?_____ When?_____ For how long?_____
□ No

4. How long is your online shopping experience?
□ Less than 3 month □ 3-6 month □ 6-12 month □ 1-2 years □ 2 -4 years
□ More than 4 years

5. Frequency of online shopping in the past six months:
□ 1-2 times □ 3-5 times □ 6-10 times □ more than 10 times

6. Can you name a website retailer that you have visited and answer the following questions based on your experience?

The name of the website retailer:_____

Step II: Please answer the following five parts questions

Please indicate your agreement with the next set of statements using the following rating scale (Please circle one answer in each line across).

Strongly disagree	disagree	Somewhat disagree	undecided	Somewhat agree	agree	Strongly agree
1	2	3	4	5	6	7

1. Your website where you've bought your clothes

Website	strongly disagree						strongly agree
1. I am concerned about availability of written privacy policy on this website.	1	2	3	4	5	6	7
2. I don't know how my personal information will be used.	1	2	3	4	5	6	7
3.I am concerned about disclosure of my personal information collected to third-parties.	1	2	3	4	5	6	7
4. I am concerned about disclosure of my shopping behavior patterns.	1	2	3	4	5	6	7
5. I don't know if my behavior is tracked and by what methods.	1	2	3	4	5	6	7
6. This website fulfill security requirement in terms of encryption on financial transaction. e.g. credit card details.	1	2	3	4	5	6	7
7. The written security policy is available on this website.	1	2	3	4	5	6	7
8. This website has guarantee of product delivery.	1	2	3	4	5	6	7
9. An individual cannot reasonably claim not to have taken an action on-line while they actually have. For example, once an order is placed, the buyer/ seller cannot deny placing such an order.	1	2	3	4	5	6	7
10. This website is well known.	1	2	3	4	5	6	7
11. This website has a good reputation	1	2	3	4	5	6	7
12. This website is known to be concerned about customers.	1	2	3	4	5	6	7

2. Your intention to purchase on this website

Intention to purchase on this website	strongly disagree						strongly agree
1. If I were to buy the same product again, I would likely buy it from this website.	1	2	3	4	5	6	7
2. I am likely to return to this website for my next purchase.	1	2	3	4	5	6	7
3. I will recommend this website to friends.	1	2	3	4	5	6	7

3. Please evaluate the perceived risk in respect of a clothing purchase on this website.

very low	low	a little low	a little high	high	very high
1	2	3	4	5	6

	very low					very high
1. The clothes have a negative effect on the body (quality, material).	1	2	3	4	5	6
2. Loss of money if the credit card information is hacked or potential loss of the current cost as well as additional charges in the future (e.g., the possibility that the product may need to be repaired, be changed, or difficulty to get money back).	1	2	3	4	5	6
3. False or fraudulent online information causes that the clothing product purchased online doesn't meet the expectations.	1	2	3	4	5	6
4. Not receiving the product on time, long delivery time, or product being damaged during the delivery.	1	2	3	4	5	6
5. Waste time researching information and purchasing when finally making a bad purchasing decision.	1	2	3	4	5	6
6. The pressure from the friends or the family if the clothing purchase online is failed.	1	2	3	4	5	6
7. Loss of self-esteem, or disappointed from the frustration of not achieving a buying goal.	1	2	3	4	5	6

4. About you

Gender: □ female □ male

Age: □ 18-22 □ 23-25 □ 26-29 □ 30-34 □ 35-39 □ more than 40

Education:
□ Bachelor □ Master □ PhD □ Others_____

What is your major: ……..……..

Appendix D-2. Research Questionnaire in Chinese Version

您好！

我是一名就读于法国格勒诺布尔二大管理专业的博士生，目前正在进行一项关于网上购物的研究。如果您在过去六个月内曾经在网上通过网络零售商（如淘宝商城/天猫、麦考林、凡客、卓越亚马逊、京东商城、日日来商城、华强商城、卓购商城等）购买过服装类商品，希望您能帮助我填写这份问卷。您的网购经历对我的研究有很大帮助，希望您能分享您的感想。

本问卷采用无记名方式，您尽可以放心填写真实想法, 您的所有信息绝对保密。如果您接受参与问卷调查，您有权力随时停止回答问卷。最后，请注意问卷没有标准答案，您所给出的答案没有对错之分，问卷的目的不是为了测试您的知识程度，而是想了解您对有关网上购物的看法。

感谢您的积极参与支持！问卷大约需要 15 分钟。如果您有任何疑问，请联系我。
如果您想要一份调查结果，请通过电子邮件联系我 (lilizheng19@yahoo.fr)。

第一部分：

1. 你是否曾经在网上通过网络零售商购买过服装类商品？

□ 是 (请继续回答第二题)　　□ 否（结束问卷）

2. 您是中国人吗？

□ 是 (请继续回答第二题)　　□ 否（结束问卷）

3. 您曾经在国外居住过吗？

□ 是　哪里？_____　什么时间？_____　多久？_____　□ 否

4. 您从网上购物有多久了？

□ 少于 3 个月　□ 3-6 个月　□ 6-12 个月　□ 1-2 年　□ 2-4 年　□ 4 年以上

5. 过去六个月内网上购买频率：

□ 1-2 次　□ 3-5 次　□ 6-10 次　□ 多于 10 次

6. 请你列举一家你曾购物过的国内购物网站，并且根据你在该网站购物的经历回答以下问题。

该购物网站的名字：_____

第二部分：请回答以下五小节问题：

请对以下各组陈述给出您的同意程度（请勾选对应的数字）

完全不同意	不同意	有点不同意	不确定	有点同意	同意	完全同意
1	2	3	4	5	6	7

1. 关于这个网站

	完全不同意						完全同意
1. 我担心这个网站是否有书面的隐私政策。	1	2	3	4	5	6	7
2. 我不知道我在这个网站上的个人信息将被如何使用。	1	2	3	4	5	6	7
3. 我担心这个网站收集到的关于我的个人信息是否会对第三方批露。	1	2	3	4	5	6	7
4. 我不知道我在这个网站上的购物行为是否会受到追踪，以及通过何种方法追踪。	1	2	3	4	5	6	7
5. 我担心我在这家网站上的购物行为是否会遭到批露。	1	2	3	4	5	6	7
6. 这个网站符合在交易加密方面的安全要求，比如信用卡的详细信息。	1	2	3	4	5	6	7
7. 这个网站提供书面的安全政策。	1	2	3	4	5	6	7
8. 这个网站提供产品送货保证。	1	2	3	4	5	6	7
9. 如果一个人已经在这家网站上在线进行操作，那他就不可能对此否认。例如，一旦提交订单，那买方/卖方就不能否认这个订单已经生成。	1	2	3	4	5	6	7
10. 这是家知名网站。	1	2	3	4	5	6	7

11. 这个网站有良好的声誉。	1	2	3	4	5	6	7
12. 该网站因为以顾客为中心而出名。	1	2	3	4	5	6	7

2. 您在这个网站上的未来购物打算

	完全不同意						完全同意
1. 如果需要再次购买购买同样的商品，我还会选择从这个网站上购买。	1	2	3	4	5	6	7
2.下次买衣服，我还在这个网站上购买。	1	2	3	4	5	6	7
3. 我会把这个网站推荐给朋友。	1	2	3	4	5	6	7

3. 请对在此网站上购物的风险进行评估

很低	低	比较低	比较高	高	很高
1	2	3	4	5	6

	很低					很高
穿着所购买的衣服时（由于质量，材料等问题）会对身体造成伤害。	1	2	3	4	5	6
信用卡信息被盗用造成金钱损失，或金钱上的过多花费（如，不值得花那么多钱去购买服装，或要花费更多的金钱进行改修或向买家更换，或者无法退还货款）。	1	2	3	4	5	6
网上信息虚假, 欺诈, 致使购买的服装没有达到预期效果。	1	2	3	4	5	6
送货过程中出现诸如延迟送货，所购衣服在运输过程中受损等问题。	1	2	3	4	5	6
所购衣服没有达到预期，而造成的时间浪费，如，花在搜索信息，购买服装上的时间。	1	2	3	4	5	6
网购的衣服没有达到预期，而受到来自朋友或家人的压力。	1	2	3	4	5	6
购买的服装没有达到预期效果，从而心理产生负面情绪，比如自信心受到打击，或感到失望等。	1	2	3	4	5	6

4. 关于您

性别：□ 男　□ 女

年龄：

□ 18-22 岁　□ 23-25 岁　□ 26-29 岁　□ 30-34 岁　□ 35-39 岁　□ 40 岁以上

学历: □ 本科　□ 硕士　□ 博士　□ 其他

您的专业：.....

Appendix D-3. Research Questionnaire in French Version

Bonjour,

En vue de préparer une thèse de doctorat en sciences de gestion à Université Pierre-Mendès-France, Grenoble, nous conduisons actuellement une recherche au sujet de l'achat sur Internet.

Si vous avez acheté au cours des six derniers mois des vêtements sur un site Web de vente (ex. Amazon, Vente-privée, PriceMinister, Zalando, 3 Suisse, etc.), merci de nous aider en remplissant ce questionnaire. Votre expérience nous intéresse et nous souhaitons partager vos réflexions, car elles sont importantes pour notre recherche.

Nous vous assurons de la confidentialité totale de vos réponses. Les informations que vous apporterez n'ont d'intérêt que pour la recherche scientifique. Si vous choisissez de répondre à notre questionnaire, vous pouvez bien entendu arrêter à tout moment. Enfin, nous tenons à souligner qu'il n'y a pas de bonnes ou de mauvaises réponses aux questions. C'est votre opinion personnelle qui enrichira notre recherche.

Environ quinze minutes suffiront pour compléter ce questionnaire. Si vous avez des questions, n'hésitez pas à nous contacter. C'est avec plaisir que nous vous répondrons. Nous vous remercions pour votre confiance et le temps que vous nous accorderez. Pour recevoir les résultats de cette enquête adressez simplement un e-mail à lilizheng19@yahoo.fr.

Étape I*: Projection*

1. Avez-vous déjà acheté des vêtements sur des sites web de vente? (Si vous répondez «Non», c'est la fin du questionnaire)
□ Oui (Continuez à la question 2) □ Non (fin du questionnaire)

2. Etes vous français?
□ Oui (Continuez à la question 3) □ Non (fin du questionnaire)

3. Avez-vous déjà vécu hors de France?
□ Oui Où? _____ Quand? _____ Pendant combien de temps? _____
□ Non

4. Depuis combien de temps achetez-vous des produits sur Internet ?
□ moins de 3 mois □ 3-6 mois □ 6-12 mois □ 1-2 ans □ 2-4 ans □ plus de 4 ans

5. Combien de fois avez-vous acheté des produits sur Internet au cours des six derniers mois?
□ 1-2 fois □ 3-5 fois □ 6-10 fois □ plus de 10 fois

6. Pouvez-vous nommer un site détaillant sur quel vous avez acheté et répondre aux questions suivantes en fonction de votre expérience?

Indiquez le nom du site détaillant: _____

Étape II: **Merci de répondre aux cinq séries de questions suivantes.**

Dans quelle mesure êtes-vous d'accord avec ces affirmations ? Merci d'entourer l'un des 7 chiffres.

pas du tout d'accord	pas d'accord	un peu pas d'accord	indécis	un peu d'accord	d'accord	tout à fait d'accord
1	2	3	4	5	6	7

1. Le site Web de vente où vous avez acheté vos vêtements.

	pas du tout d'accord						tout à fait d'accord
1. Je suis préoccupé par la disponibilité de la politique de confidentialité écrite par ce site.	1	2	3	4	5	6	7
2. Je ne sais pas comment mes informations personnelles seront utilisées.	1	2	3	4	5	6	7
3. Je suis préoccupé par la divulgation à des tiers des informations personnelles recueillis.	1	2	3	4	5	6	7
4. Je suis préoccupé par la divulgation de mes comportements d'achat et de mes achats.	1	2	3	4	5	6	7
5. Je ne sais pas si mon comportement est suivi et comment.	1	2	3	4	5	6	7
6. Ce site répond à l'exigence de sécurité en termes de cryptage sur les transactions financières. e.x. les détails de la carte de crédit.	1	2	3	4	5	6	7
7. Le texte détaillé de la politique de sécurité est disponible sur ce site.	1	2	3	4	5	6	7
8. Ce site garantit la livraison du produit.	1	2	3	4	5	6	7
9. Une fois la commande passée, l'acheteur ne peut plus se rétracter.	1	2	3	4	5	6	7

10. Ce site est bien connu.	1	2	3	4	5	6	7
11. Ce site a une bonne réputation.	1	2	3	4	5	6	7
12. Ce site est connu pour se préoccuper de ses utilisateurs.	1	2	3	4	5	6	7

2. Votre intention d'achat sur ce site.

	pas du tout d'accord						tout à fait d'accord
1. Si je devais acheter le même produit à nouveau, je l'achèterai probablement sur ce site.	1	2	3	4	5	6	7
2. Je suis susceptible de revenir sur ce site pour mon prochain achat.	1	2	3	4	5	6	7
3. Je recommanderai ce site à des amis.	1	2	3	4	5	6	7

3. Le risque perçu à l'égard des achats de vêtements sur ce site.

pas du tout élevé	**pas élevé**	**plutôt pas élevé**	**plutôt élevé**	**élevé**	**tout à fait élevé**
1	**2**	**3**	**4**	**5**	**6**

	Pas du tout élevé					Tout à fait élevé
1. Les composants du vêtement ont un effet négatif sur le corps.	1	2	3	4	5	6
2. Perte potentielle d'argent en cas de carte de crédit piraté, ou perte potentielle du coût actuel, ou des frais supplémentaires à l'usage (réparation du produit, remplacement, remboursement)	1	2	3	4	5	6
3. Des informations en ligne fausse ou frauduleuse font que le produit en ligne de vêtements achetés ne répond pas aux attentes.	1	2	3	4	5	6
4. Problèmes de livraison (délais, produit endommagé).	1	2	3	4	5	6
5. Perte de temps pour la recherche d'informations et l'achat lors d'une mauvaise décision.	1	2	3	4	5	6
6. La pression exercée par les amis ou la famille, si l'achat échoue.	1	2	3	4	5	6
7. Perte d'estime de soi, ou frustration d'avoir fait un mauvais achat.	1	2	3	4	5	6

4. Vous

Etes-vous: □ une femme □ un homme

Dans quelle tranche d'âge vous situez-vous?
□ 18 à 22 ans □ 23 à 25 ans □ 26 à 29 ans □ 30 à 34 ans □ 35 à 39 ans □ plus de 40 ans

Quel est votre niveau d'étude?
□ bac à bac+3 □ bac+4 à bac+5 □ supérieur à bac+6 □ autres

Appendix E. Reliability and Factor Loadings of the Main Constructs Used in the Research

	Chinese Sample		French Sample	
	Factor Loadings	**Cronbach's alpha**	**Factor Loadings**	**Cronbach's alpha**
Perceived Non-Personal Risk (NPSL)		0.843		0.811
1. The clothes have a negative effect on the body (quality, material).	0.689		0.735	
2. Loss of money (potential loss of the current cost as well as additional charges in the future, if the credit card information is hacked).	0.701		0.786	
3. False or fraudulent online information has the result that the clothing product purchased online doesn't meet expectations.	0.813		0.783	
4. Not receiving the product on time, long delivery time, or product being damaged during delivery.	0.739		0.668	
5.Time wasted researching information and purchasing when ultimately making a bad purchasing decision.	0.763		0.704	
Perceived Personal Risk (PSLR)		0.745		0.642
1. The pressure from friends or family if the online clothing purchase fails.	0.793		0.767	
2. Loss of self-esteem, or disappointment from frustration of not achieving a buying goal.	0.825		0.841	
Reputation (REPUTAT)		0.845		0.902
1. This website is well known.	0.811		0.880	
2. This website has a good reputation	0.870		0.929	
3. This website is known to be concerned about customers.	0.841		0.917	
PRIVACY (PRIVACY)				
1. I don't know how my personal information will be used.	0.781	0.843	0.696	0.772
2. I am concerned about disclosure of my personal information collected to third-parties.	0.854		0.822	
3. I am concerned about disclosure of my shopping behaviour patterns.	0.840		0.787	
4. I don't know if my behaviour is tracked and by what methods.	0.787		0.699	
SECURITY (SECURIT)				
1. This website fulfill security requirement in terms of encryption on financial transaction. e.g. credit card details.	0.695	0.767	0.771	0.646
2. The written security policy is available on this website.	0.873		0.676	
3. This website has guarantee of product delivery.	0.808		0.740	

* The items are deleted after the confirmatory factor analysis.

Appendix E. Reliability and Factor Loadings of the Main Constructs Used in the Research (continued)

	Chinese Sample		French Sample	
	Factor Loadings	**Cronbach's alpha**	**Factor Loadings**	**Cronbach's alpha**
Intention to Repurchase (IOP)		0.846		0.887
1. If I were to buy the same product again, I would likely buy it from this website.	0.897		0.880	
2. I am likely to return to this website for my next purchase.	0.853		0.896	
3. I will recommend this website to friends.	0.822		0.891	

* The items are deleted after the confirmatory factor analysis.

Appendix F. Model Fit Summary of Confirmatory Factor Analysis for the Chinese sample

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	55	226,906	155	,000	1,464
Saturated model	210	,000	0		
Independence model	20	1840,660	190	,000	9,688

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	,108	,895	,858	,661
Saturated model	,000	1,000		
Independence model	,506	,399	,335	,361

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	,877	,849	,957	,947	,956
Saturated model	1,000		1,000		1,000
Independence model	,000	,000	,000	,000	,000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	,816	,715	,780
Saturated model	,000	,000	,000
Independence model	1,000	,000	,000

NCP

Model	NCP	LO 90	HI 90
Default model	71,906	35,645	116,161
Saturated model	,000	,000	,000
Independence model	1650,660	1516,874	1791,859

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	1,170	,371	,184	,599
Saturated model	,000	,000	,000	,000
Independence model	9,488	8,509	7,819	9,236

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	,049	,034	,062	,540
Independence model	,212	,203	,220	,000

AIC

Model	AIC	BCC	BIC	CAIC
Default model	336,906	350,258	516,921	571,921

Model	AIC	BCC	BIC	CAIC
Saturated model	420,000	470,983	1107,330	1317,330
Independence model	1880,660	1885,515	1946,120	1966,120

ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	1,737	1,550	1,965	1,805
Saturated model	2,165	2,165	2,165	2,428
Independence model	9,694	9,005	10,422	9,719

HOELTER

Model	HOELTER .05	HOELTER .01
Default model	159	171
Independence model	24	26

Appendix G. Model Fit Summary of Confirmatory Factor Analysis for the French sample

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	55	241,760	155	,000	1,560
Saturated model	210	,000	0		
Independence model	20	1962,012	190	,000	10,326

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	,094	,904	,870	,667
Saturated model	,000	1,000		
Independence model	,473	,438	,379	,397

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	,877	,849	,952	,940	,951
Saturated model	1,000		1,000		1,000
Independence model	,000	,000	,000	,000	,000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	,816	,715	,776
Saturated model	,000	,000	,000
Independence model	1,000	,000	,000

NCP

Model	NCP	LO 90	HI 90
Default model	86,760	48,521	132,940
Saturated model	,000	,000	,000
Independence model	1772,012	1633,528	1917,906

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	1,099	,394	,221	,604
Saturated model	,000	,000	,000	,000
Independence model	8,918	8,055	7,425	8,718

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	,050	,038	,062	,463
Independence model	,206	,198	,214	,000

AIC

Model	AIC	BCC	BIC	CAIC
Default model	351,760	363,368	538,658	593,658
Saturated model	420,000	464,322	1133,614	1343,614
Independence model	2002,012	2006,234	2069,976	2089,976

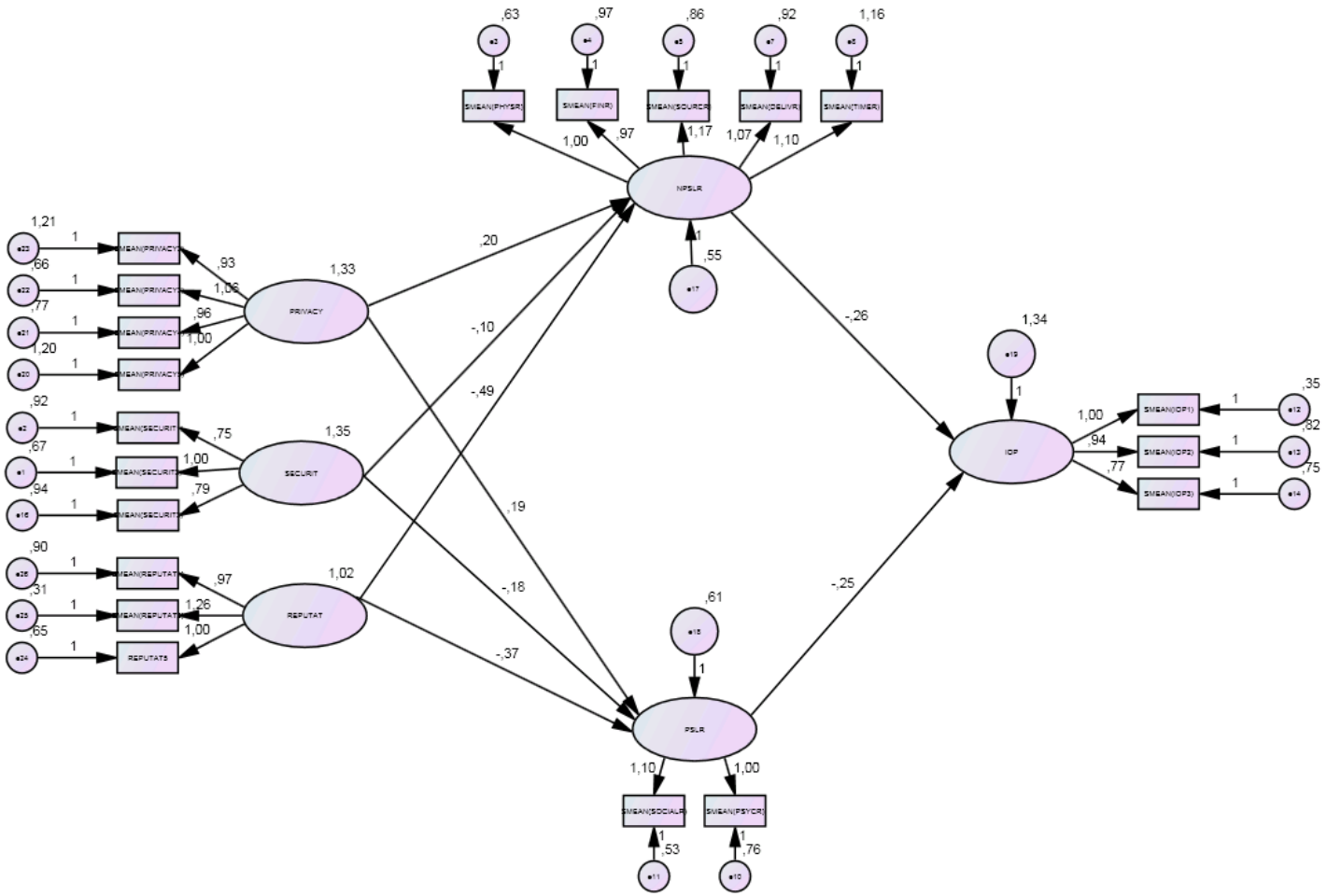
ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	1,599	1,425	1,809	1,652
Saturated model	1,909	1,909	1,909	2,111
Independence model	9,100	8,471	9,763	9,119

HOELTER

Model	HOELTER .05	HOELTER .01
Default model	169	181
Independence model	26	27

Appendix H. Structural Equation Model for the Chinese Sample



Appendix I. Model Fit Summary of Structural Equation Model for the Chinese sample

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	48	310,510	162	,000	1,917
Saturated model	210	,000	0		
Independence model	20	1840,660	190	,000	9,688

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	,201	,860	,819	,664
Saturated model	,000	1,000		
Independence model	,506	,399	,335	,361

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	,831	,802	,912	,894	,910
Saturated model	1,000		1,000		1,000
Independence model	,000	,000	,000	,000	,000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	,853	,709	,776
Saturated model	,000	,000	,000
Independence model	1,000	,000	,000

NCP

Model	NCP	LO 90	HI 90
Default model	148,510	102,530	202,296
Saturated model	,000	,000	,000
Independence model	1650,660	1516,874	1791,859

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	1,601	,766	,529	1,043
Saturated model	,000	,000	,000	,000
Independence model	9,488	8,509	7,819	9,236

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	,069	,057	,080	,005
Independence model	,212	,203	,220	,000

AIC

Model	AIC	BCC	BIC	CAIC
Default model	406,510	418,163	563,614	611,614
Saturated model	420,000	470,983	1107,330	1317,330
Independence model	1880,660	1885,515	1946,120	1966,120

ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	2,095	1,858	2,373	2,155
Saturated model	2,165	2,165	2,165	2,428
Independence model	9,694	9,005	10,422	9,719

HOELTER

Model	HOELTER .05	HOELTER .01
Default model	121	130
Independence model	24	26

Appendix J. Regression Weights of Structural Equation Model for the Chinese sample

Regression Weights: (China - Default model)

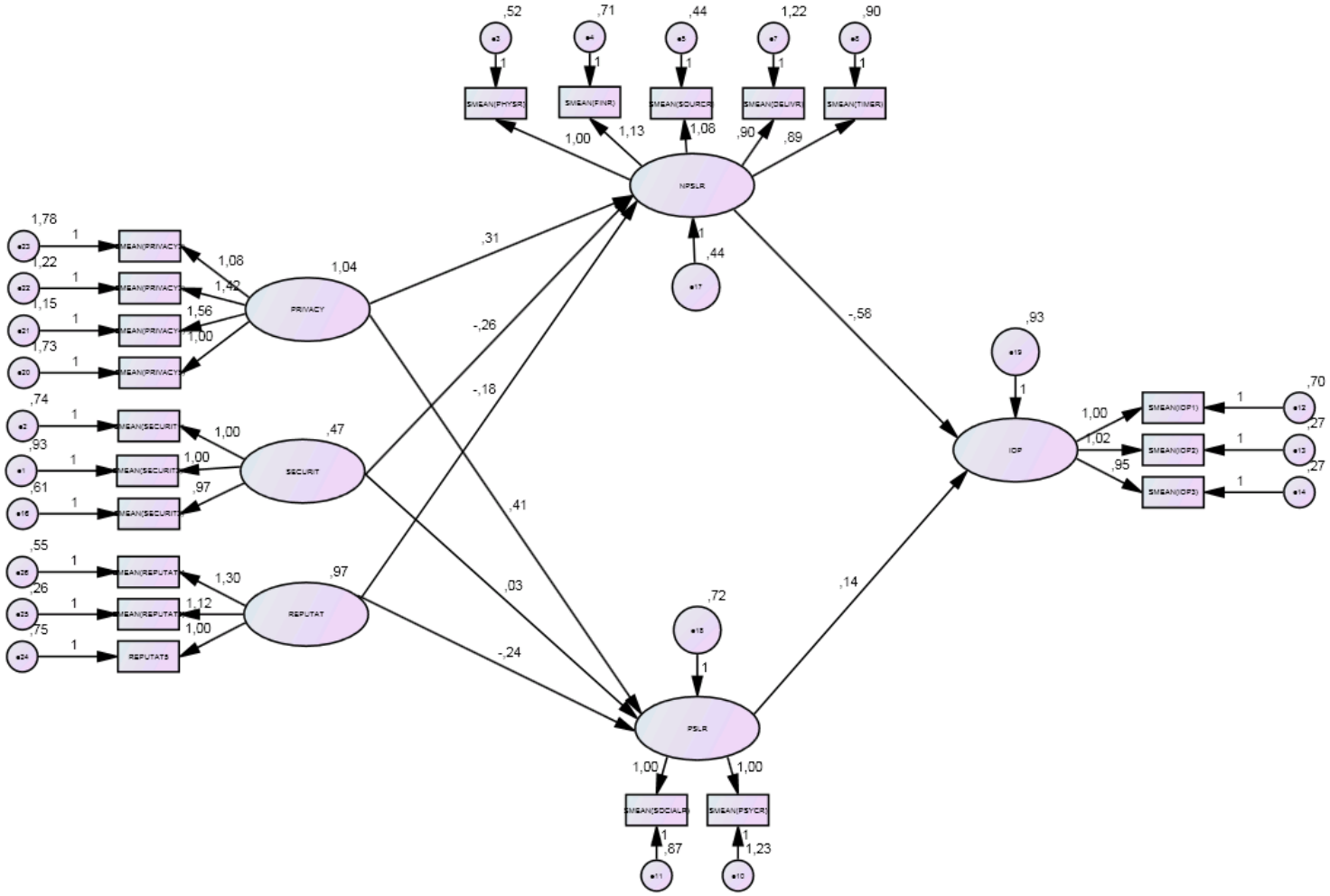
			Estimate	S.E.	C.R.	P	Label
NPSLR	<---	SECURIT	-,096	,061	-1,572	,116	
NPSLR	<---	PRIVACY	,204	,061	3,337	***	
PSLR	<---	PRIVACY	,189	,069	2,742	,006	
NPSLR	<---	REPUTAT	-,488	,077	-6,326	***	
PSLR	<---	REPUTAT	-,369	,085	-4,332	***	
PSLR	<---	SECURIT	-,185	,071	-2,600	,009	
IOP	<---	NPSLR	-,264	,114	-2,314	,021	
IOP	<---	PSLR	-,249	,122	-2,031	,042	
SECURIT2_1	<---	SECURIT	1,000				
SECURIT1_1	<---	SECURIT	,748	,100	7,459	***	
PHYSR_1	<---	NPSLR	1,000				
DELIVR_1	<---	NPSLR	1,075	,112	9,613	***	
TIMER_1	<---	NPSLR	1,103	,120	9,169	***	
PSYCR_1	<---	PSLR	1,000				
SOCIALR_1	<---	PSLR	1,104	,186	5,946	***	
IOP1_1	<---	IOP	1,000				
IOP2_1	<---	IOP	,936	,083	11,219	***	
IOP3_1	<---	IOP	,768	,073	10,592	***	
SECURIT3_1	<---	SECURIT	,793	,105	7,528	***	
PRIVACY5_1	<---	PRIVACY	1,000				
PRIVACY4_1	<---	PRIVACY	,955	,097	9,870	***	
PRIVACY3_1	<---	PRIVACY	1,064	,103	10,308	***	
PRIVACY2_1	<---	PRIVACY	,932	,104	8,926	***	
REPUTAT5	<---	REPUTAT	1,000				
REPUTAT2_1	<---	REPUTAT	1,263	,105	12,018	***	
REPUTAT1_1	<---	REPUTAT	,972	,095	10,207	***	
SOURCR_1	<---	NPSLR	1,170	,115	10,134	***	
FINR_1	<---	NPSLR	,974	,108	9,003	***	

Variances: (China - Default model)

	Estimate	S.E.	C.R.	P	Label
SECURIT	1,346	,243	5,542	***	
PRIVACY	1,330	,243	5,474	***	
REPUTAT	1,015	,167	6,093	***	
e18	,611	,143	4,275	***	
e17	,554	,102	5,422	***	
e19	1,338	,191	6,992	***	
e1	,671	,162	4,138	***	
e2	,920	,125	7,334	***	
e3	,631	,083	7,584	***	
e4	,966	,114	8,455	***	
e5	,855	,113	7,559	***	
e7	,915	,114	8,049	***	

	Estimate	S.E.	C.R.	P	Label
e8	1,160	,139	8,357	***	
e10	,758	,150	5,048	***	
e11	,529	,166	3,189	,001	
e12	,347	,103	3,387	***	
e13	,817	,119	6,874	***	
e14	,753	,096	7,853	***	
e16	,945	,134	7,042	***	
e20	1,199	,151	7,953	***	
e21	,771	,109	7,101	***	
e22	,661	,112	5,922	***	
e23	1,206	,147	8,222	***	
e24	,652	,089	7,359	***	
e25	,313	,095	3,286	,001	
e26	,903	,109	8,300	***	

Appendix K. Structural Equation Model for the French sample



Appendix L. Model Fit Summary of Structural Equation Model for the French sample

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	48	318,172	162	,000	1,964
Saturated model	210	,000	0		
Independence model	20	1962,012	190	,000	10,326

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	,154	,877	,840	,676
Saturated model	,000	1,000		
Independence model	,473	,438	,379	,397

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	,838	,810	,913	,897	,912
Saturated model	1,000		1,000		1,000
Independence model	,000	,000	,000	,000	,000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	,853	,714	,777
Saturated model	,000	,000	,000
Independence model	1,000	,000	,000

NCP

Model	NCP	LO 90	HI 90
Default model	156,172	109,362	210,775
Saturated model	,000	,000	,000
Independence model	1772,012	1633,528	1917,906

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	1,446	,710	,497	,958
Saturated model	,000	,000	,000	,000
Independence model	8,918	8,055	7,425	8,718

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	,066	,055	,077	,008
Independence model	,206	,198	,214	,000

AIC

Model	AIC	BCC	BIC	CAIC
Default model	414,172	424,302	577,283	625,283
Saturated model	420,000	464,322	1133,614	1343,614
Independence model	2002,012	2006,234	2069,976	2089,976

ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	1,883	1,670	2,131	1,929
Saturated model	1,909	1,909	1,909	2,111
Independence model	9,100	8,471	9,763	9,119

HOELTER

Model	HOELTER .05	HOELTER .01
Default model	134	143
Independence model	26	27

Appendix M. Regression Weights of Structural Equation Model for the French sample

Regression Weights: (France - Default model)

			Estimate	S.E.	C.R.	P	Label
NPSLR	<---	SECURIT	-,262	,102	-2,578	,010	
NPSLR	<---	PRIVACY	,308	,065	4,704	***	
PSLR	<---	PRIVACY	,408	,103	3,970	***	
NPSLR	<---	REPUTAT	-,180	,058	-3,102	,002	
PSLR	<---	REPUTAT	-,241	,088	-2,744	,006	
PSLR	<---	SECURIT	,031	,136	,227	,820	
IOP	<---	NPSLR	-,584	,115	-5,092	***	
IOP	<---	PSLR	,141	,094	1,509	,131	
SECURIT2_1	<---	SECURIT	1,000				
SECURIT1_1	<---	SECURIT	,999	,192	5,200	***	
PHYSR_1	<---	NPSLR	1,000				
DELIVR_1	<---	NPSLR	,895	,124	7,215	***	
TIMER_1	<---	NPSLR	,892	,112	7,960	***	
PSYCR_1	<---	PSLR	1,000				
SOCIALR_1	<---	PSLR	,997	,214	4,652	***	
IOP1_1	<---	IOP	1,000				
IOP2_1	<---	IOP	1,017	,071	14,394	***	
IOP3_1	<---	IOP	,954	,067	14,308	***	
SECURIT3_1	<---	SECURIT	,972	,188	5,166	***	
PRIVACY5_1	<---	PRIVACY	1,000				
PRIVACY4_1	<---	PRIVACY	1,559	,176	8,852	***	
PRIVACY3_1	<---	PRIVACY	1,419	,163	8,712	***	
PRIVACY2_1	<---	PRIVACY	1,080	,143	7,536	***	
REPUTAT5	<---	REPUTAT	1,000				
REPUTAT2_1	<---	REPUTAT	1,119	,086	13,004	***	
REPUTAT1_1	<---	REPUTAT	1,299	,101	12,824	***	
SOURCR_1	<---	NPSLR	1,085	,105	10,330	***	
FINR_1	<---	NPSLR	1,133	,118	9,638	***	

Variances: (France - Default model)

	Estimate	S.E.	C.R.	P	Label
SECURIT	,470	,133	3,546	***	
PRIVACY	1,042	,224	4,655	***	
REPUTAT	,969	,154	6,285	***	
e18	,718	,202	3,550	***	
e17	,444	,081	5,483	***	
e19	,928	,142	6,512	***	
e1	,933	,125	7,490	***	
e2	,743	,112	6,664	***	

	Estimate	S.E.	C.R.	P	Label
e3	,524	,065	8,112	***	
e4	,713	,086	8,251	***	
e5	,436	,061	7,131	***	
e7	1,221	,126	9,690	***	
e8	,904	,096	9,413	***	
e10	1,229	,226	5,436	***	
e11	,872	,209	4,163	***	
e12	,696	,080	8,662	***	
e13	,272	,052	5,186	***	
e14	,267	,048	5,614	***	
e16	,613	,100	6,127	***	
e20	1,735	,186	9,309	***	
e21	1,150	,193	5,971	***	
e22	1,221	,178	6,873	***	
e23	1,783	,195	9,145	***	
e24	,746	,084	8,833	***	
e25	,262	,061	4,288	***	
e26	,547	,092	5,969	***	

Appendix N. Résumé en Français

LES ANTÉCÉDENTS ET LES CONSÉQUENCES DES RISQUES PERÇUS DANS LES ACHATS SUR INTERNET CHINE ET FRANCE : UNE APPROCHE INTERCULTURELLE

RÉSUMÉ

Le Constat

Dans le monde entier le développement d'Internet a eu un fort impact sur le milieu de la commercialisation et a donné aux entreprises la possibilité de se développer en utilisant le commerce électronique (Kailani et Kumar, 2011). Malgré des avantages du commerce électronique sur le commerce traditionnel, les aspects négatifs associés à ce mode d'achat doivent également être pris en compte. Les risques perçus associés aux achats en ligne ont des conséquences primordiales sur la prise de décision du consommateur (Ko et al., 2004). L'exposition à cette nouvelle méthode de transactions et l'abondance d'informations apportent une incertitude accrue aux utilisateurs d'internet, les débutants comme les expérimentés (Angriawan et Thakur, 2008; Kailani et Kumar, 2011).

Les consommateurs perçoivent généralement un niveau de risques plus élevé lors d'achats sur Internet que lors d'achats en mode traditionnel. Ces risques perçus associés à l'achat en ligne à leur tour ont des conséquences déterminantes sur la prise de décision du consommateur. Il est suggéré que le risque perçu est un élément essentiel pour expliquer le comportement des consommateurs puisque les consommateurs sont plus souvent portés à minimiser l'échec

potentiel plutôt qu'à rechercher le succès dans l'achat (Mitchell, 1999). Du point de vue managérial, la compréhension des risques perçus par les consommateurs est une grande préoccupation. Le risque perçu, par conséquent, est devenu un sujet de recherche crucial pour de nombreux chercheurs (Kalakota et Whinston, 1996). Cependant, à ce jour, peu de recherches empiriques ont exploré les risques perçus, leurs antécédents et leurs conséquences. L'enquête sur les déterminants et les conséquences des risques perçus est donc l'une des préoccupations primordiales de notre recherche.

Le commerce électronique dépend des marchés mondiaux pour son expansion et sa croissance. Les achats en ligne ont donc un caractère international. Il est essentiel de comprendre l'impact interculturel sur les risques perçus lors d'achats sur Internet (Kailani et Kumar, 2011). Autrement dit, une bonne compréhension des raisons pour lesquelles les risques perçus varient selon les différentes cultures lors d'achats en ligne est indispensable.

Le concept de culture, depuis longtemps reconnu en anthropologie, sociologie et psychologie, joue un rôle important dans le marketing (Ogden et al., 2004 ; Soares, 2004). Le riche flux d'études empiriques interculturelles produit dans les années 1990 a vu l'émergence de contributions théoriques sur l'application de la culture à la commercialisation (Douglas et Craig, 1997). Au cours des deux dernières décennies, les questions interculturelles et les risques perçus ont respectivement acquis plus de reconnaissance dans les systèmes d'information et le marketing (Poumadere, 1995; Brenot et al., 1998;. Weber et Hsee, 1998; Park et juin 2003; Viklund, 2003; Erdem et al, 2004; Ueltschy et al, 2004; Keh et Sun, 2008; Comegys et al, 2009; Ko et al, 2010; Kailani et Kumar, 2011). Toutefois, à notre connaissance, peu d'études ont examiné l'impact des influences culturelles sur les déterminants du risque perçu. De ce fait, les recherches concernant l'impact de la culture sur les déterminants du risque perçu lors d'achats doivent en tenir compte.

La Chine est un des pays qui ont montré une tendance à adopter les technologies de l'information la plus rapide. Selon le CNNIC[14] (2010), les achats en ligne sont devenus un mode d'achat important en Chine. En 2008, les transactions sur les marchés de vente en ligne ont représenté

[14] China Internet Network Information Center

1,1% du total des ventes au détail. Cette proportion est passée à 2% en 2009, et à 3,3% en 2010. En 2010, les transactions annuelles d'achat en ligne s'élèvent à 523,1 milliards de yuans[15], en hausse de 109,2% par rapport à l'année 2009. Parallèlement, le nombre des acheteurs chinois ne cesse de croître, le taux de pénétration du shopping en ligne continue d'augmenter en 2010. En Décembre 2010, le taux de pénétration des achats en ligne a atteint 35,1% (CNNIC, 2010). Il y a 161 millions d'acheteurs en ligne en Chine.

Le E-commerce poursuit également sa progression en Europe. Le dernier rapport «B2C E-Commerce Report 2011 » présenté par la société de recherche yStats.com donne un aperçu de l'e-commerce B2C en Europe. Selon ce rapport, le nombre d'acheteurs en ligne en Europe s'élèvera à 200 millions en 2015. Le rapport « France B2C E-Commerce Report 2011 » montre qu'en France 56% de la population a acheté sur Internet en 2010. Les transactions B2C en France ont augmenté de 20% en 2010 par rapport à 2009. En outre, près de la moitié de la population française âgée de 25-34 a acheté des « vêtements, articles de sport » en ligne en 2010.

Pourtant, notre examen de la littérature indique que la plupart des recherches interculturelles sur les risques perçus ont été menées dans le contexte de pays autres que la Chine et la France, par exemple, l'Allemagne, la Chine, la Pologne et les États-Unis (Weber et Hsee, 1998); la Chine et Singapour (Keh et Sun, 2008); les États-Unis et le Canada (Keh et Sun, 2008); les États-Unis et la Finlande (Comegys et al, 2009.); les États-Unis et la Corée du sud (Park et juin 2003;. Ko et al, 2010); le Royaume-Uni et Hong Kong/Chine (Lim et al, 2004.); les États-Unis et le Royaume-Uni (Erdem et al, 2004.). La recherche dans le contexte chinois et français est limitée. Compte tenu de l'importance économique respective de la Chine et de la France et des différences culturelles entre ces deux pays, il semble intéressant et important d'explorer les risques perçus par les consommateurs de ces deux pays.

Les Objectifs et la Question de Recherche

Les questions liées aux risques perçus sont une dimension adaptée à la culture du comportement

[15] *Yuan* is the base unit of a number of modern Chinese currencies. The Renminbi is the official currency of the People's Republic of China (PRC). It is abbreviated as RMB, and the units for the Renminbi are the Yuan (元), Jiao (角), and Fen (分) The *yuan* is the primary unit of account of the *Renminbi*. Exchange Rate: Current Exchange Rate with U.S. Dollar: $1 = 6.59 *Yuan* RMB (Feb. 2011) See http://en.wikipedia.org/wiki/Chinese_yuan

de consommation (Hofstede, 1984). La prise de risques constitue une dimension importante du comportement du consommateur à travers une large gamme de produits et de situations (Soares, 2004). Cette recherche vise à enrichir la théorie du risque perçu et à mettre en évidence la recherche transnationale en tant que paradigme important dans la recherche culturelle internationale. Elle le fera en fournissant un modèle multi-groupe expliquant l'impact du risque perçu sur le processus psychologique menant à l'intention de rachat liée à la perception des préoccupations liées à la protection des informations personnelles « privacy concerns », de la qualité de la protection des données confidentielles « security protection » et de la réputation des sites Web « website retailer's reputation ».

Notre recherche vise également à fournir d'importants renseignements aux e-commerçants. Les gestionnaires et les distributeurs internationaux doivent impérativement prendre en compte : les préoccupations liées à la protection des informations personnelles « privacy concerns », la qualité de la protection des données confidentielles « security protection » et la réputation des sites Web « website retailer's reputation » qui sont les facteurs essentiels influant sur l'intention de rachat via la perception du risque.

La concurrence entre les e-commerçants a été intensifiée par la croissance des technologies de l'information, la mondialisation rapide, et la libéralisation du commerce électronique. Il est, par conséquent, nécessaire que les entreprises internationales comprennent que le niveau de risque perçu et la force de l'influence des déterminants sur la perception du risque varient selon les cultures. Cette connaissance aidera les gestionnaires à faire face et à traiter les différences culturelles dans leurs efforts de marketing et de vente (Keh et Sun, 2008).

Ce projet de recherche a été conçu comme une étude exploratoire pour examiner un modèle théorique de déterminants et de conséquences des risques perçus dans le contexte des achats de vêtements en ligne, en tenant compte des différences culturelles. Les résultats de Hofstede (1980, 2001), Schwatz (1992, 1999), Trompenaars (1993) et Hall (1973) confirment l'existence de différences culturelles entre la Chine et la France. Cette recherche a été menée à partir des données interculturelles collectées dans ces deux pays.

Plus précisément, les objectifs de cette recherche sont présentés comme suit :

1) *Proposer un modèle théorique des antécédents et des conséquences du risque perçu par les consommateurs dans le contexte du commerce électronique.*

Une poignée de chercheurs a tenté de classer les antécédents du risque perçu (i.e., Celsi et Olson, 1988; Jain et Srinivasan, 1990; Dowling et Staelin, 1994; Volle, 1995; Tse, 1996; Weber et Hsee, 1998; Dholakia, 2001; Conchar et al, 2004; Ding, 2007; Keh et Sun, 2008; Kailani et Kumar, 2011). Sur la base de l'examen des études précédentes, nous avons constaté que la recherche sur les déterminants du risque perçu est un chemin prometteur pour de futures recherches et mérite une attention plus soutenue, puisque ces études manquent généralement de soutien empirique et d'approche globale.

2) *Tester empiriquement le modèle proposé à partir des données interculturelles*

La culture a été identifiée comme une cause sous-jacente du comportement des consommateurs, et cela s'étend au e-commerce (Kailani et Kumar, 2011). Comme les achats sur Internet deviennent de plus en plus globaux et que l'utilisation d'Internet augmente à un rythme exponentiel en termes de nombre d'interactions interculturelles entre les e-vendeurs et les consommateurs ; il devient de plus en plus important de comprendre la nature des différences culturelles sur la perception du risque dans le e-commerce.

McAllister (1995) a proposé deux catégories de déterminants en terme de confiance - les déterminants basés sur l'affect « affect-based determinants » et les déterminants basés sur la cognition « cognition-based determinants ». Selon l'auteur, l'orientation de l'affect (par exemple, le comportement de la citoyenneté et la fréquence d'interaction) est construit sur les liens affectifs entre les partenaires, alors que l'orientation basée sur la cognition repose sur la connaissance de la performance du rôle (par exemple l'exercice de la performance du rôle fiable, les similitudes culturelles-ethniques et les identifications professionnelles). En comparant l'affect et la cognition dans les deux cultures différentes, Chen et al. (1998) proposent que l'orientation de l'affect soit plus positivement liée à la coopération dans une culture collectiviste.

Plus tard, Kim (2008) a adapté ces deux catégories à son modèle des déterminants pour la confiance dans les deux cultures différentes (Etats-Unis et Corée du Sud). L'auteur a développé deux groupes déterminants pour la confiance – les déterminants basés sur le transfert « transference-based », par exemple, la réputation et les déterminants basé sur l'auto-perception « self-perception based », par exemple, les préoccupations liées à la protection des informations personnelles « privacy concerns » et la qualité de la protection des données confidentielles « security protection ».

De ce fait, il est essentiel pour les chercheurs et les sociétés internationales d'identifier les différences entre les consommateurs dans le contexte interculturel. Dans cette recherche, nous avons exploré l'influence de la culture sur le risque perçu avec un paradigme de recherche interculturelle. Plus précisément, nous avons testé l'influence de ces dimensions sur deux groupes dans leurs contextes culturels spécifiques.

3) Re-tester les dimensions culturelles de Hofstede

Une façon d'étudier la culture est de parcourir l'identification et la mesure des dimensions culturelles (Dickson et al, 2003.) Les dimensions culturelles les plus souvent citées (ainsi que vivement critiquées) sont sans aucun doute celles proposées par Hofstede (1980, 2001). Il a d'abord classé quatre dimensions de la culture : individualisme-collectivisme, masculinité-féminité, évitement de l'incertitude, et distance de puissance. Dans un travail postérieur (2001), on a ajouté une cinquième dimension : « orientation future ». Chaque pays dans ce modèle se caractérise par un score pour chacune de ces dimensions.

Les recherches antérieures sur les risques perçus ont généralement adopté une perspective transnationale, dans laquelle les pays ont été utilisés comme substituts pour les cultures nationales (Hoover et al, 1978; Poumadere, 1995; Park et Jun, 2003; Viklund, 2003; Comegys et al., 2009). La plupart des études interculturelles précédentes sont basées sur les dimensions culturelles nationales de Hofstede (Weber et Hsee, 1998; Jones et Alony, 2007; Ladbury et Hinsz, 2009; Ko et al, 2010; Moosmayer et Koehn, 2011; Zheng et al., 2012). Les chercheurs

s'entendent pour dire que les cultures nationales perdurent dans le temps ; qu'elles sont toujours valables comme des identités collectives (Hofstede, 1991) et ignorent le changement de culture.

Étant donné le rythme rapide de la mondialisation et l'instabilité économique et politique (Agarwal et al., 2010), bien que les cultures nationales perdurent au fil du temps et soient toujours d'actualité comme les identités collectives (Hofstede, 1991), il devrait y avoir hétérogénéité dans les attitudes culturelles et les comportements des consommateurs elon les régions et homogénéité entre les pays (Agarwal et al., 2010). Nous doutons donc que les valeurs culturelles se conservent au fil du temps. Il est donc nécessaire d'identifier si les valeurs culturelles changent au fil du temps ou non avant d'utiliser le modèle de culture de Hofstede dans notre recherche.

Bien que son modèle de culture (1984; 1991; 2001) soit surtout largement utilisé dans la recherche interculturelle, le travail de Hofstede a été critiqué puisque les travaux empiriques qui ont découvert les quatre premières dimensions ont eu lieu en 1967-1973, notamment du fait de l'évolution rapide des environnements globaux. Compte tenu de cette réalité, le but de ce nouveau test est de réévaluer les valeurs culturelles de Hofstede et de vérifier si ces valeurs culturelles changent au fil du temps.

4) *Fournir aux dirigeants d'entreprises un aperçu du commerce électronique à partir d'une perspective interculturelle*

Cette étude a pour but d'enrichir la théorie du risque perçu et d'étendre le concept de risque perçu au contexte du commerce électronique. Nous étudions les différences dans les niveaux de risque perçu dans le contexte d'achats sur Internet dans les différentes cultures. Nous allons plus loin en identifiant les facteurs qui influencent le risque perçu avec un support empirique : les déterminants basés sur le transfert « transference-based » (réputation du site Web commerçant « website retailer's reputation ») et les déterminants basé sur l'auto-perception « self-perception based » (les préoccupations liées à la protection des informations personnelles « privacy concerns » et à la qualité de la protection des données confidentielles « security protection »).

Le commerce électronique n'a pas de frontières nationales et a un caractère international, les détaillants vendeurs en ligne ont donc besoin de stratégies pour les différents segments du marché. Cette recherche met en évidence la recherche interculturelle comme un paradigme important dans la recherche culturelle internationale en explorant comment le risque perçu diffère dans un arrière-plan culturel différent. Cette recherche fournit aux commerçants et aux détaillants une identification à des modèles à l'échelle nationale du risque perçu en ligne. Les gestionnaires peuvent utiliser ce modèle comme un outil de segmentation du marché pour les stratégies internationales.

La question de recherche de ce projet est donc la suivante:

Quelles sont les différences significatives dans l'effet de plusieurs déterminants de la perception du risque lors d'achats de vêtements en ligne en fonction des différences culturelles entre la Chine et la France?

Plus spécifiquement, cette recherche vise à répondre à quatre sous-questions suivantes:

Les consommateurs chinois perçoivent-ils un niveau de risque plus élevé concernant les achats en ligne que les consommateurs français?

La qualité de la protection des données confidentielles « security protection » a-t-elle un effet positif sur la perception du risque des consommateurs lors des achats en ligne ?

Les préoccupations liées à la protection des informations personnelles « privacy concerns » ont-elles un effet négatif sur la perception du risque ?

La réputation du site web a-elle un effet négatif sur la perception du risque des consommateurs lors des achats en ligne?
Le risque perçu affecte-il négativement l'intention de rachat?

*L'inclusion de la culture en tant que variable explicative enrichi**t**-elle la compréhension du*

risque perçu par les consommateurs dans un contexte international?

La Fondation Théorique

Pour mieux répondre à ces questions de recherche, nous avons dans un premier temps examiné et défini les concepts-clé dans cette recherche.

Le Risque Perçu

Le concept de risque perçu a une histoire riche en systèmes d'information et en marketing. Le comportement des consommateurs face au risque a fait l'objet de nombreuses études au cours des 40 dernières années (Bauer, 1960; Mitchell, 1999; Cases, 2001, Zheng et al, 2012). Depuis la prise de risques a été introduite par Bauer (1960) comme une mesure possible de l'attitude des consommateurs à l'achat dans la littérature de comportement de commercialisation et de consommation.

La littérature a porté principalement sur l'analyse d'un modèle conceptuel de la perception des risques du consommateur (Kogan et Wallach, 1964; Arndt, 1967a; Arndt, 1967b; Cox, 1967a; Cunningham, 1967; Schiffman, 1972; Ross, 1975;. Hoover et al, 1978; Mitchell, 1999; Pires et al, 2004), les différentes dimensions des risques, y compris les aspects financiers, physiques, sociaux et psychologiques (Cunningham, 1967; Ingene et Roselius, 1971; Jacoby et Kaplan, 1972; Kaplan et al., 1974; Pierre et Ryan, 1976; Hughes, 1985; Stone et Gronhaug, 1993), les stratégies de réduction des risques (Cox, 1967a; Roselius, 1971; Guseman, 1981; Kotler, 1984; Lumpkin, 1986;. Mangold et al, 1987; Akaah et Korgaonkar, 1988; Tan, 1999; Soopramanien et al., 2007; Samadi et Yaghoob-Najadi, 2009; Kim, 2010) ; la relation entre les risques perçus des consommateurs et la classe de produits / fonctionnalités (Cunningham, 1967; Taylor, 1974 Schaninger, 1976; Hoover et al, 1978; Havlena et DeSarbo, 1991; Ueltschy et al, 2004); et les risques perçus à travers des situations d'achat (Taylor, 1974; Assael, 2004; Cunningham et al, 2004; Pavlou et Gefen, 2004; Shivraj et Vikas, 2004; Kim et al., 2008).

Selon Oltedal et al. (2004), le risque est lié à la probabilité et aux conséquences d'un événement. La plupart des définitions du risque incluent une estimation de la probabilité qu'un événement négatif se produise (Brun, 1994). Adams dit (1995, p. 69) « risque, selon les définitions les plus communément trouvées dans la littérature de sécurité, est la probabilité d'un événement futur négatif multiplié par son ampleur ». Toutefois, l'estimation individuelle elle-même du risque, peut être très différente de l'estimation objective (Boholm, 1996). Le risque objectif est calculé à partir des statistiques et des distributions de probabilité, mais celles-ci sont complètement indépendantes de la connaissance et des préoccupations liées à la source du risque d'un individu (Ulleberg et Rundmo, 1996).

Le risque perçu varie d'une culture à une autre. La perception a été définie comme « le processus de sélection, d'organisation et d'interprétation des informations afin de créer une image du monde » (Kotler et Keller, 2006 cité par Santana et Loureiro, 2010, p. 162). « La perception dépend non seulement de la stimulation physique, mais aussi de la relation entre le stimulus et l'environnement et des conditions internes du consommateur » (Santana et Loureiro, 2010, p. 162). Par conséquent, le risque perçu dépend de la façon dont une personne comprend et connaît un phénomène. Comme indiqué par Oltedal et al. (2004), de nombreux facteurs influent la perception du risque, telle que la familiarité avec la source de danger (Ittelson, 1978), le contrôle de la situation (Rachman, 1990), et le caractère dramatique des événements (les événements rares ont tendance à être surestimés, tandis que la fréquence des événements communs (ou courants) tend à être sous-estimée).

L'Internet, comme nouvelle plate-forme pour faire du shopping, a inspiré le débat sur la perception du risque (Cases, 2001). Un grand nombre d'études portant sur les dimensions du risque perçu ont émergé à la suite de la montée en puissance de ce nouveau mode de shopping (McCorkle, 1990; Cases, 2001; Featherman et Pavlou, 2003; Crespo et al, 2009; Comegys et al, 2009; Ko et al, 2010).

Les Antécédents du Risque Perçu

À ce jour, bien que certains chercheurs aient tenté de catégoriser les antécédents du risque perçu

dans le commerce (Celsi et Olson, 1988; Jain et Srinivasan, 1990; Dowling et Staelin, 1994; Volle, 1995; Tse, 1996; Weber et Hsee, 1998; Dholakia, 2001 ; Conchar et al, 2004; Sjöberg et al, 2004; Ding, 2007; Keh et Sun, 2008; Kailani et Kumar, 2011), les résultats sont limités et méritent plus d'attention.

Volle (1995) a examiné la recherche du risque dans le domaine de la psychologie et a regroupé plusieurs déterminants en trois ensembles liés à l'individu, le produit et la situation d'achat. Les individus dont le style cognitif est caractérisé par un fort désir de clarification (Cox, 1967b), et une capacité de différenciation importante ou une grande tolérance à l'ambiguïté (Muller, 1985) perçoivent moins de risques que d'autres. Muller (1985) a confirmé ces résultats avec des produits à haut risque. Deuxièmement, les études antérieures montrent que la perception du risque dépend du type de produit (Cunningham, 1967; Perry et Hamm, 1969; Jacoby et Kaplan, 1972; Derbaix, 1983), du pays d'origine du produit (Dunn et al, 1986), de la marque, s'il s'agit d'une marque de confiance, (Roselius, 1971) et du prix (Zeithaml, 1988; Gijsbrechts, 1993; Grawal et al., 1994). Troisièmement, en ce qui concerne les variables situationnelles qui peuvent influencer le risque perçu, Volle (1995) mentionne que l'encadrement influence risque perçu (Tversky et Kahneman, 1982). Ainsi, les individus craignent le risque quand l'alternative est présenté comme un gain, mais acceptent, voire recherchent le risque, quand l'alternative est présentée comme une perte (Kahneman et Tversky, 1979).

En ce qui concerne l'information que nécessite un acheteur lors de l'examen d'un achat, Tiangsoongnern (2007) indique que l'information est un facteur qui influence le niveau de risque perçu par l'acheteur. Diverses études concluent que cette information est associée à la réduction du risque perçu impliqué dans un achat (Ha, 2002; Tan, 1999). Le niveau de risque perçu par l'acheteur peut être influencé par la disponibilité et la crédibilité de l'information nécessaire pour prendre une décision. Par exemple, les préoccupations liées à la protection des informations personnelles ont été prouvées augmenter le risque perçu lors de l'achat en ligne (Kim et Montalto, 2002). Un autre antécédent important de la perception du risque est le souci de l'acheteur face à la sécurité de la transaction (Heijden et al., 2003). Ces préoccupations non seulement augmentent le niveau de risque perçu, mais aussi réduisent la probabilité d'achat en ligne (Chellappa et Pavlou, 2002).

L’influence Culturelle sur le Risque Perçu

« L'un des concepts les plus importants dans le développement de stratégies de marketing mondial est l'analyse interculturelle » (Blackwell et Hassan, 1994, p. 3), puisque les valeurs culturelles sont au cœur de la structure cognitive individuelle. Elles jouent un rôle clé dans la détermination du comportement des consommateurs (Steenkamp et al., 1999), car elles façonnent les perceptions et les comportements de la population (Ueltschy et al., 2004).

Compte tenu de la mondialisation rapide des achats en ligne, comprendre pourquoi les déterminants des risques perçus liés aux achats en ligne varient d'une culture à l'autre est crucial. Les valeurs culturelles constituent une bonne base théorique pour comprendre le risque perçu (Keh et Sun, 2008) parce que la culture a non seulement des effets sur la manière dont les gens réagissent au risque, mais aussi sur la manière dont ils le perçoivent et l’évaluent (Choi et Geistfeld, 2004; Javenpaa et Tractinsky, 1999; Ueltschy et al., 2004).

Nous basant sur des études précédentes, nous constatons que l'impact de la culture sur la perception du risque du consommateur est un chemin prometteur pour la recherche et mérite plus d'attention en raison des limites (i.e., le manque de dimensions culturelles spécifiées, l'absence de fortes différences culturelles dans les résultats, et / ou le manque de résultats convergents) des travaux antérieurs. Tout d'abord, nous constatons que toutes les études interculturelles antérieures sur la perception du risque ont porté sur l'examen des différences de perception du risque entre les nations. Aucune d'entre elles n’a étendu la recherche à l'identification des influences culturelles sur les déterminants du risque perçu.

Deuxièmement, un certain nombre d'études ont comparé les différences entre pays : risque perçu sur la base des scores culturels nationaux de Hofstede (1991). Pourtant, les dimensions culturelles n'ont pas été incluses dans la recherche pour expliquer pourquoi les consommateurs de ces pays perçoivent différents niveaux de risque. Par exemple, la première étude du risque qui a constaté des différences significatives du risque de consommation perçue était l'œuvre de Hoover et al. (1978). Les auteurs (1978) ont noté que, étant donné le même réglage d'achat, les

répondants mexicains perçoivent moins de risques que les répondants américains en raison de leurs différences culturelles générales.

Pour surmonter la nature simpliste de ces études, des recherches ont tenté d'expliquer les différences de risque perçu en utilisant les évaluations existantes des dimensions culturelles au niveau des pays (les scores des dimensions culturelles de Hofstede sont les plus fréquemment cités dans les études précédentes) comme mandataires pour les dimensions culturelles. Des études antérieures (Ko et al., 2010; Weber et Hsee, 1998) suggèrent que les dimensions culturelles (i.e., l'individualisme / le collectivisme et l'évitement de l'incertitude) affectent la perception du risque du consommateur dans un contexte transnational.

Pavlou et Chai (2002) effectuent une étude empirique pour expliquer l'adoption du commerce électronique dans les différentes cultures à partir des données de consommateurs aux États-Unis et en Chine, en intégrant trois des cinq dimensions culturelles de Hofstede (l'individualisme / le collectivisme, la distance du pouvoir, et l'orientation à long terme), ainsi que la théorie du comportement planifié. Les auteurs concluent que les différences culturelles jouent un rôle important dans les comportements des consommateurs pour l'adoption l'e-commerce.

Une autre étude réalisée par Lim et al. (2004) explore l'interaction et l'influence de l'individualisme / le collectivisme et de l'évitement de l'incertitude sur les taux d'achats sur Internet dans différents pays. Ils trouvent que l'évitement de l'incertitude et l'individualisme / le collectivisme sont les dimensions culturelles les plus pertinentes pour les achats sur Internet car elles sont liées à une volonté d'accepter les risques potentiels inhérents aux achats sur Internet et à faire confiance à des vendeurs en ligne inconnus. Les conclusions de ces études menées pour étudier l'influence de ces deux dimensions culturelles sur le risque perçu n'étaient pas, cependant, convergentes et étaient même, dans certains cas, contraires.

Finalement, Sinkovics et al. (2007) notent qu'une autre limitation est que la littérature existante se concentre fortement sur la culture américaine. Par ailleurs, nous assistons à des faiblesses méthodologiques telles que la taille relativement petite de l'échantillon (Fink et Laupase, 2000; Singh et Baack, 2004; Singh et al, 2004;.. Singh et al, 2003) et une profondeur assez limitée de

l'analyse culturelle (Okazaki et Rivas, 2002).

Le Modèle Culturel de l'Individualisme / le Collectivisme

Il y a eu une convergence considérable en termes de résultats liés à l'individualisme / le collectivisme dans le domaine conceptuel. Par exemple, dans l'examen du caractère national, la dimension culturelle de Schwartz (1999) le dépassement de soi par rapport à l'auto-amélioration « self-transcendence versus self-enhancement » est un exemple ; la communication à contexte élevé « High-context communication » de Hall (1973) s'adapte à la société collectiviste et la communication à faible contexte « low-context communication » s'inscrit dans la société individualiste; Il y a l'individualisme contre le collectivisme « individualism versus collectivism » de Trompenaars (1993); les dimensions culturelles de Clark (1990) qui chevauchent celles de Hofstede (1984; 1991; 2001) et l'individualisme de Douglas (1966, 1978) est similaire à l'individualisme / le collectivisme de Hofstede (1998, 2001).

Selon Hofstede (2001, p. 29), l'individualisme contre le collectivisme (IDV / COL) est « lié à l'intégration des individus dans des groupes primaires». Il mesure le degré auquel les individus se perçoivent comme, et prennent des décisions sur la base du « je » plutôt que du « nous » (Hofstede, 1991). Plus précisément, selon Kim (2008), l'individualisme se réfère au degré auquel une culture renforce la réalisation et l'indépendance individuelle. Un score élevé indique l'individualisme « une culture avec une attitude plus individualiste et des obligations relativement lâches avec les autres ». Par exemple, les Chinois sont considérés comme une culture assez collectiviste, alors que la France est individualiste (Hofstede, 1991). En France, les jeunes quittent le domicile de leurs parents sans se sentir obligés de s'occuper d'eux à mesure qu'ils vieillissent ou de les consulter avant de prendre des décisions. Hofstede (2001) a également constaté que les personnes dans les pays à-individualisme fort semblent s'appuyer davantage sur les médias et moins sur, par exemple, leurs réseaux sociaux pour obtenir des informations.

Les études interculturelles antérieures ont été basées sur les dimensions culturelles nationales de Hofstede (Moosmayer et Koehn, 2011; Jones et Alony, 2007; Ko et al., 2010; Ladbury et Hinsz, 2009; Weber et Hsee, 1998; Zheng et al., 2012). Ces études s'accordent à dire que les cultures

nationales perdurent au fil du temps et qu'elles sont valables comme identités collectives (Hofstede, 1991), mais elles ne tiennent pas compte des changements culturels. Compte tenu du rythme rapide de la mondialisation, de l'instabilité économique et politique, et de la domination des multinationales (Agarwal et al., 2010), les valeurs culturelles peuvent changer au fil du temps. Par conséquent, nous avons re-testé les scores des dimensions culturelles de Hofstede pour vérifier si sa dimension culturelle individualiste / collectiviste est applicable pour notre recherche.

Ce nouveau test a élargi sur Hofstede (1984, 2001), sur les études en Chine et en France et les résultats ont confirmé les conclusions de Hofstede (1984, 2001) en termes de dimension d'individualisme / collectivisme, même si nous avons constaté que les Chinois ont une valeur de collectivisme moyenne plutôt que la valeur de collectivisme haute notée précédemment, tandis que les Français semblent être plus collectivistes que ceux des études de Hofstede (1984, 2001). Quand les environnements politiques, sociaux et économiques changent, les valeurs culturelles changent également. Par exemple, depuis 1978, avec l'avènement de la réforme économique et une plus grande ouverture, la Chine a connu un changement institutionnel et économique extraordinaire (Tisdell, 2009). Cela a considérablement modifié sa culture. Les Chinois, en particulier les jeunes, sont de plus en plus influencés par la culture occidentale, y compris par les attributs de l'individualisme et de la démocratie.

Le Développement Hypothétique et de Modèle de Recherche

La Protection de la Préoccupation des Informations Personnelles « privacy concerns » et la Perception du Risque

Selon Kim (2008), les informations personnelles « privacy » sont définies comme « les droits des individus et des organisations » afin de déterminer eux-mêmes comment, quand, et dans quelle mesure l'information à leur sujet doit être autorisée à l'utilisation par d'autres » (p. 23). « La propriété des renseignements personnels » (p. 42) semble être le point commun de multiples définitions des informations personnelles (Tiangsoongnern, 2007). Lorsque le concept est étendu

au contexte en ligne, les informations personnelles concernent les « préoccupations telles que le partage non autorisé des renseignements personnels, le spam chez le détaillant en ligne et la divulgation du comportement de consommation » (Kim, 2008, p. 24). Ces préoccupations peuvent augmenter le niveau de risque perçu par les consommateurs (Chellappa et Pavlou, 2002; Tiangsoongnern, 2007). Compte tenu de ce qui précède, notre première hypothèse est la suivante :

H1.1: La perception de la préoccupation des informations personnelles liée au site Web commerçant aura un effet négatif sur la perception (a) du risque non-personnel, (b) du risque personnel du consommateur chinois.

H1.2: La perception de la préoccupation des informations personnelles liée au site Web commerçant aura un effet négatif sur la perception (a) du risque non-personnel, (b) du risque personnel du consommateur français.

La Qualité de la Protection des Données Confidentielles « security protection » et la Perception du Risque

Les problèmes de sécurité des consommateurs sont un autre facteur déterminant de la perception du risque (Tiangsoongnern, 2007). Les consommateurs sont généralement préoccupés par la garantie de la sécurité d'un site Web commerçant, parce que les acheteurs en ligne doivent divulguer des informations confidentielles, telles que les informations de carte de crédit, sur Internet (Kim, 2008). La qualité de la protection des données confidentielles « security protection » fait référence aux exigences de sécurité demandées par les consommateurs en ligne et garantis par les sites Webs commerçants, tels que « l'authentification, l'intégrité, le chiffrement et la non-répudiation » (Kim, 2008, p. 23). Selon Chellappa et Pavlou (2002), plus les consommateurs perçoivent les efforts de sécurité que présente sur le site Web commerçant, moins ils perçoivent le risque. Cela nous amène à notre seconde hypothèse.

H2.1: La perception de la protection des informations personnelles « privacy concerns » sur le site Web commerçant aura un effet négatif sur la perception (a) du risque non-personnel, (b) du risque personnel du consommateur chinois.

H2.2: La protection de la qualité de la protection des données confidentielles « security protection » sur le site Web commerçant aura un effet négatif sur la perception (a) du risque non-personnel, (b) du risque personnel du consommateur français.

La Réputation du Site Web Commerçant et la Perception du Risque

La réputation est généralement considérée comme « l'impression et l'évaluation de l'estime ou l'opportunité d'une entité sociale » (Azari, 2003, p. 251). Selon Lin et al. (2006), la réputation d'une entreprise réside dans son nom de marque qui porte l'image de l'entreprise. Une organisation qui a une bonne réputation peut compenser un risque perçu. Akaah et Korgaonkar (1988) et Zheng et al. (2012) soulignent l'importance attachée à la réputation d'un constructeur dans la réduction du risque perçu par les consommateurs face aux achats en ligne. Les consommateurs sont susceptibles de percevoir un e-commerçant avec une bonne réputation comme étant plus fiable et crédible que celui qui a une mauvaise réputation. Par conséquent, comme une information extrinsèque, la bonne réputation du site Web commerçant devrait favoriser la faible perception des risques financiers, des performances et des informations personnelles pour les acheteurs en ligne (Sweeney et al., 1999). Par conséquent, nous suggérons que l'effet négatif de la forte perception du risque est diminué par une bonne réputation de l'organisation et posons les hypothèses suivantes :

H3.1: La bonne réputation du site Web commerçant aura un effet négatif sur la perception (a) du risque non-personnel, (b) du risque personnel du consommateur chinois.

H3.2: La bonne réputation du site Web commerçant aura un effet négatif sur la perception (a) du risque non-personnel, (b) du risque personnel du consommateur français.

L’Influence Culturelle sur la Perception du Risque

Les dimensions culturelles les plus souvent citées (ainsi que vivement critiquées) sont sans aucun doute celles proposées par Hofstede (1980, 2001). Il a classé cinq dimensions culturelles. Elles sont l'individualisme - le collectivisme, la masculinité- la féminité, l'évitement de l'incertitude, la distance du pouvoir et l'orientation future. Chaque pays dans ce modèle se caractérise par un score pour chacune des dimensions. Selon les scores de Hofstede, la Chine (20) affiche un niveau d'individualisme inférieur à la France (71).

Le Niveau de la Perception du Risque des Consommateurs Chinois et Français

Des études antérieures ont démontré que la culture influe sur la décision individuelle, la formation de l'attitude, le jugement, et d'autres processus cognitifs (i.e., McCort et Malhotra 1993; Radford et al., 1993). La culture affecte non seulement la façon dont les gens réagissent à un risque, mais aussi comment ils perçoivent et évaluent les risques (Choi et Geistfeld, 2004; Javenpaa et Tractinsky, 1999; Ueltschy et al., 2004).

Parmi les cinq grandes dimensions de valeurs culturelles, l’évitement de l'incertitude est considéré comme la perspective interculturelle la plus importante de risque perçu parce que cette dimension reflète la tolérance ou l'intolérance d'une culture de l'incertitude. L'évitement de l'incertitude fait référence au « niveau de stress dans une société face à un avenir inconnu » (Hofstede, 2001, p. 29). « Dans un pays à faible évitement de l'incertitude, non seulement des risques familiers mais aussi des risques inconnus sont acceptés, tels que le changement d'emploi et le départ des activités pour lesquels il n'existe pas de règles » (Hofstede, 2001, p. 148). Selon Hofstede (2001), les cultures d'évitement faible en l’incertitude sont caractérisées par « plus de prise de risque » (p. 132) et une « préférence pour des tâches à l'issue incertaine et des risques calculés » (p. 169). En revanche, les cultures riches en évitement de l'incertitude devraient avoir tendance à prendre moins de risque parce qu'elles sont motivées par la peur de l'échec ou de la perte (Bontempo et al., 1997).

Certains chercheurs (Kailani et Kumar 2011; Ko et al., 2004) supposent que les différences

interculturelles dans l'indice d'évitement de l'incertitude aura une incidence sur le risque de shopping en ligne perçue entre les deux pays. L'étude de Hofstede (1984) démontre que la Chine est une culture faible concernant l'évitement de l'incertitude, alors que la France était une culture élevée concernant l'évitement de l'incertitude. En conséquence, la Chine se caractérise par une prise de risques plus importante (Hofstede, 2001), tandis que la France a tendance àà prendre moins de risques. Des études antérieures interculturelles sur le risque perçu suivi cette perspective. Par exemple, la réalisation d'une étude interculturelle sur les États-Unis, la Jordanie et l'Inde, Kailani et Kumar (2011) a indiqué que dans les cultures où l'évitement de l'incertitude est élevé, la perception du risque sur internet est également élevée. Cela a un impact négatif sur l'achat sur internet. Ainsi, nous proposons l'hypothèse suivante:

H4.1: Les consommateurs chinois en ligne perçoivent un niveau plus élevé du risque perçu non-personnel que les consommateurs français.

H4.2: Les consommateurs chinois en ligne perçoivent un niveau plus élevé du risque perçu personnel que les consommateurs français.

L'Effet de la Culture sur la Perception de l'Importance des Déterminants de la Perception des Risques

L'individualisme contre le collectivisme se réfère au degré d' « intégration des individus dans des groupes primaires » (Hofstede, 2001, p. 29). Un score élevé d'individualisme pour Hofstede indique une culture avec des attitudes indépendantes et des obligations relativement lâches envers les autres. En revanche, les faibles scores de l'individualisme (un rang élevé de collectivisme) indiquent des liens plus étroits entre les individus (Kim, 2008). Contrairement aux collectivistes, les gens dans une culture individualiste, comme la France par exemple, sont plus susceptibles de rechercher des informations par eux-mêmes, à partir de sources directes et formelles qui sont séparées de leur contexte social (Kim, 2008).

Par conséquent, la protection des informations personnelles « privacy concerns » et la qualité de la protection des données confidentielles « security protection », deux items principalement liés

au raisonnement auto-cognitif de consommateurs basé sur l'auto-perception « self-perception » et l'intérêt personnel « self-interest » à travers des expériences directes et des interactions avec un e-vendeur, sont plus valorisées dans la culture française que dans la culture chinoise. De même, les membres d'une culture collectiviste (Chine) sont plus susceptibles de partager leurs opinions et leurs attitudes (Kim, 2008). Nous concluons alors que la réputation est plus valorisée dans les cultures collectivistes. Nous appuyant sur les différences interculturelles concernant la protection des informations personnelles « privacy concerns », la qualité de la protection des données confidentielles « security protection » et la réputation des sites Web « website retailer's reputation », nous proposons les hypothèses suivantes:

H5.1: Les préoccupations liées à la protection des informations personnelles sur la perception (a) du risque non-personnel et (b) du risque personnel ont un effet plus fort dans une culture individualiste (France) que dans une culture collectiviste (Chine).

H5.2: La qualité de la protection des données confidentielles sur la perception (a) du risque non-personnel et (b) du risque personnel a un effet plus fort dans une culture individualiste (France) que dans une culture collectiviste (Chine).

H5.3: La réputation du site Web commerçant sur la perception (a) du risque non-personnel et (b) du risque personnel a un effet plus fort dans une culture collectiviste (Chine) que dans une culture individualiste (France).

La Perception du Risque et l'Intention de Rachat

D'un point de vue managérial, l'intention de rachat à long terme est reconnue comme étant un objectif sous-jacent de la planification stratégique de marketing, car elle provoque beaucoup de résultats positifs pour les entreprises. La plupart des recherches sur les conséquences du risque perçu ont examiné le lien entre la perception du risque et la phase de post-achat (Cunningham, 1967; Fosythe et Shi, 2003; Liebermann et Stachevski, 2002; Miyazaki et Fernandez, 2001; Samadi et Yaghoob nejadi, 2009; Vijayasarathy et Jones, 2000).

Sheth et Parvatiyar (1995) indiquent que les consommateurs ont tendance à rester fidèles au

choix de la marque / produit précédent s'ils perçoivent un faible niveau de risque dans leur prise de décision. Herrero Crespo (2009) rapporte dans son examen de la littérature qu'il existe des preuves empiriques à l'appui de l'effet de la perception du risque sur la fréquence des transactions (Miyazaki et Fernandez 2001) et l'intention de refaire des achats avec le même fournisseur dans le futur (Liang et Huang, 1998; Vijayasarathy et Jones, 2000; Liao et Cheung 2001). Nous présentons donc les hypothèses suivantes:

H6.1: La perception (a) du risque non-personnel, (b) du risque personnel aura des effets négatifs sur l'intention de rachat du consommateur chinois sur un site Web commerçant.

H6.2: La perception (a) du risque non-personnel, (b) du risque personnel aura des effets négatifs sur l'intention de rachat du consommateur français sur un site Web commerçant.

Le Désign de l'Enquête

Pour mieux comprendre les risques perçus par les consommateurs sur Internet, en appuyant sur l'approche qualitative, nous avons tout d'abord conduit des entrevues semi-structurées auprès 11 étudiants chinois et 11 étudiants français qui ont acheté des vêtements sur un site web commerçant au cours des six derniers mois. Les entrevues nous ont permis de raffiner les construits et proposer des hypothèses réalistes.

L'échantillon pour cette étude était composé d'acheteurs de vêtements en ligne. Tous les participants avaient effectué au moins un achat précédent de vêtements sur Internet. Les étudiants ont été utilisés comme échantillons dans notre étude pour des raisons à la fois de comparabilité et de représentativité. On a demandé aux participants de répondre volontairement au questionnaire. Aucune compensation financière n'a été remise aux participants.

Les questionnaires ont été adaptés pour des répondants chinois et des répondants français. La méthode retraduction a été utilisée pour traduire le questionnaire original en anglais en version chinoise et française. Les questionnaires chinois et français traduits ont été ensuite pré-testé

auprès des répondants chinois et français en France afin de s'assurer que les questions étaient précises et nuancées. Sur la base des commentaires des répondants du pré-test, les versions chinoise et française du questionnaire ont ensuite été révisées.

L'Analyse des Données et les Résultats

La Préparation des Données

Un échantillon de 760 étudiants répartis en Chine et en France a participé à l'enquête. 215 questionnaires ont été retournés incomplets (moins de 40% des questions complétées), et 545 questionnaires complets ont été retournés, soit un taux de réponse de 71,7%. Après avoir éliminé les répondants qui n'ont pas fait d'achats sur Internet au cours des six derniers mois, un total de 195 et 221 questionnaires respectivement par les répondants chinois et français ont été analysés. Pour nous assurer de l'équivalence des échantillons pour les deux pays, nous avons testé les variables démographiques des répondants (sexe, âge, éducation). Les caractéristiques de l'échantillon français ont été jugées conformes à l'échantillon chinois.

Les Tests T pour Echantillons Indépendantes « T-tests Independent Sample » ont été effectués pour les valeurs moyennes des constructions entre les données chinoises et françaises pour s'assurer que la comparaison des deux groupes culturels est différente (c.f. table 1). Selon les résultats, les scores moyens de toutes les constructions entre les données chinoises et françaises sont significativement différentes (sig. <0,05).

En ce qui concerne les scores du test T de risque non personnel et de risque personnel perçus par les échantillons français et chinois, il est intéressant de noter que les répondants chinois et français perçoivent de faible niveau de risque non personnel et personnel dans leurs achats de vêtements en ligne (les scores des deux échantillons <3), mais les répondants chinois perçoivent un risque non-personnel plus élevé (M = 2,8928) que les répondants français (M = 2,2411). De même, les répondants chinois perçoivent un risque personnel plus élevéle (M = 2,7230) que les répondants français (M = 2,2963).

Table 1. Les Résultats des T-tests Independent Sample

	Chinese sample			French sample			Mean	Std. Error	t	Sig.
	Mean	Std. Deviation	Std. Error Mean	Mean	Std. Deviation	Std. Error Mean				
Reputation (REPUTAT)	5.4694	1.18178	0.08463	5.9029	1.11468	0.07498	-0.43347	0.11265	-3.848	0.000
Privacy (PRIVACY)	4.8893	1.24321	0.08903	4.5126	1.37415	0.9244	0.37671	0.12914	2.917	0.004
Security (SECURIT)	5.1361	1.11955	0.08017	5.7287	0.8367	05601	-0.59260	0.9780	-6.059	0.000
Non-personal perceived Risk (NPSLR)	2.8928	1.04029	0.07450	2.2411	0.88309	0.5940	0.65174	0.09528	6.840	0.000
Personal Perceived Risk (PSLR)	2.7230	1.12702	0.08071	2.2963	1.21531	0.08175	0.42672	0.11542	-4.116	0.000
Intention to repurchase (IOP)	5.3428	1.20185	0.08607	5.8091	1.10870	0.07458	-0.46634	0.11331	-4.116	0.000

Tester la Validité et la Fiabilité du Modèle de Mesure

Pour garantir la pertinence de l'instrument, nous avons testé la fiabilité du contenu, la validité convergente et la validité discriminante du modèle de mesure avant de tester le modèle structurel. KMO (Kaiser-Meyer-Olkin test) de 0,815 et 0,781 respectivement pour l'échantillon chinois et l'échantillon français attestent de la bonne corrélation entre les items. Le test de Sphericity de Bartlett est significatif. 72,01 % de la variance totale est expliquée par l'ensemble des données chinoises et 67,73 % de la variance totale est expliquée par l'ensemble des données françaises. Nous avons ensuite examiné chaque construction pour examiner la fiabilité, en utilisant l'alpha de Cronbach et pour vérifier la dimension des échelles en utilisant les facteurs pondérés des facteurs « factor loadings » des items.

Nous avons ensuite effectué une analyse factorielle confirmatoire (CFA) pour l'échantillon français et l'échantillon chinois en utilisant le logiciel AMOS version 20 pour évaluer la validité convergente et discriminante de toutes les constructions. Les constructions (les préoccupations liées à la protection des informations personnelles « privacy concerns », la qualité de la protection des données confidentielles « security protection » et la réputation des sites Web « website retailer's reputation », la perception du risque non-personnel « non-personal perceived risk », la perception du risque personnel « personal perceived risk », et l'intention de racheter « intention to purchase ») ont été modélisés comme des facteurs corrélés de premier ordre.

Pour la validité convergente, selon les deux résultats de CFA, tous les coefficients lambda des items individuels sont supérieurs à 0,60 (de 0,68 à 0,92 pour l'échantillon chinois et de 0,61 à 0,92 pour l'échantillon français), sauf que l'item de risque de livraison (0,56) dans le modèle français qui est inférieur à 0,60. Malgré le fait que, après l'élimination de cet item, l'ajustement du modèle de l'échantillon français amélioré, et nous avons décidé de maintenir cet item, car il est une dimension importante du risque non-personnel. Chaque chemin présente une statistique t significative au niveau de 0,05. La validité convergente est confirmée.

Pour établir la validité discriminante, les corrélations « inter-construct » entre les variables latentes doivent être inférieures à 0,60 (Kim, 2008). Tous les corrélations « inter-construct » sont <0,60, sauf les corrélations entre le risque personnel et le risque non-personnel dans l'échantillon chinois (0,73) et celui Français (0,65). Nous avons testé le modèle alternatif en combinant le risque personnel et le risque non-personnel. L'ajustement du modèle était pire que le modèle original, ainsi nous confirmons la validité discriminante bien que le modèle original ne soit pas optimal. Le modèle de mesure est bien ajusté aux données, comme les statistiques d'ajustement suivantes indiquent: Pour l'échantillon chinois, CMIN / DF = 1,464, GFI = 0,895, CFI = 0,956, IFI = 0,957, TLI = 0,947, RMSEA = 0,049; pour l'échantillon français, CMIN / DF = 1,560, GFI = 0,904, CFI = 0,951, IFI = 0,952, TLI = 0,940, RMSEA = 0,050.

Tester l'Invariance de la Mesure Utilisant l'Analyse Multi-groupe d'Amos

Il est crucial d'établir l'invariance de la mesure parce que les items peuvent avoir une signification différente pour différents groupes de population, et donc la structure factorielle de l'instrument de mesure ne pourrait pas tenir à travers des groupes (Steenkamp et Baumgartner, 1998). Lorsqu'un instrument de mesure n'est pas équivalent à une étude interculturelle, la validité des résultats de recherche est problématique. Nous avons besoin d'une enquête plus approfondie. L'invariance multi-groupe dans cette étude a été testée à l'aide du logiciel Amos Graphics.

Avant le test pour l'égalité des ensembles de paramètres, il est intéressant de tester la possibilité qu'un modèle totalement contraint soit invariant dans tous les groupes (Byrne, 2004). Tous les facteurs pondérés sont contraints à être égaux à 0 pour la France et la Chine. Les statistiques de qualité d'ajustement « goodness-of-fit statistics » liés à ce modèle à deux groupes contraints sont présentées dans la deuxième entrée dans le tableau 2. En testant l'invariance de ce modèle contraint, nous comparons la valeur du chi-deux avec celle du modèle initial (modèle 1). Comme la valeur de différence chi-deux, de 46.179 avec 20 df, est statistiquement significative (p <0,05), elle indique que certaines

contraintes d'égalité ne tiennent pas en France et en Chine. L'instrument utilisé dans cette étude est celui avec invariance de mesure partielle. L'étape suivante consiste à identifier les facteurs pondérés d'items qui sont équivalents et qui sont non-équivalents entre les groupes.

Compte tenu de constatations de non-invariance au niveau de tous les facteurs pondérés, nous testons l'invariance de tous facteurs pondérés dans chaque sous-échelle (touts les facteurs pondérés liées à l'un des facteurs en particulier). Suite à la preuve de la non-invariance au niveau de la sous-échelle, nous testons ensuite l'invariance de facteurs pondérés « factor loadings » de chaque facteur (liée au facteur en question) séparément. À cette étape, nous avons identifié les items non-invariants (cf. tableau 2).

Nous testons ensuite l'invariance de la structure du modèle en France et en Chine. Tout d'abord, nous testons l'invariance de tous les chemins structurels. Nous limitons tous les chemins structurels. Compte tenu de l'inégalité sur tous les chemins de structure correspondants entre les groupes ($p < 0,05$), un ou plusieurs coefficients de régression des chemins dans le modèle de structure sont différents entre la France et la Chine. Nous testons ensuite l'invariance structurelle de chaque chemin séparément pour localiser les chemins de régression non-invariant (cf. tableau 3). Pour identifier ces chemins de régression différents, le processus de test pour l'invariance des paramètres de poids de régression se poursuit jusqu'à ce que tous les paramètres hypothétiques soient jugés équivalents entre les groupes, leurs contraintes d'égalité spécifiques sont conservées (cumulativement) pendant le reste du processus des tests d'invariance (Byrne, 2004).

Tableau 2. Les Statistiques de Qualité d'Ajustement pour le Test de l'Invariance du Modèle de la Mesure à travers la France et la Chine

Model Description	X^2	df	ΔX^2	Δdf	p-value	RMSEA	NFI	CFI
1. Unconstrained model	467.092	310	-	-	-	0.035	0.875	0.953
2. Fully factor loadings constrained equal model	513.271	330	46.179	20	p<0.05	0.037	0.862	0.945
3. Model 2 with factor loadings of NPSLR constrained equal	462.596	315	4.911	5	ns	0.034	0.875	0.956
4. Model 2 with factor loadings of REPUT constrained equal	476.004	313	18.319	3	p<0.05	0.035	0.872	0.951
5. Model 2 with factor loadings of item REPUT1 constrained equal	507.678	329	49.992	19	ns	0.036	0.863	0.946
6. Model 2 with factor loadings of item REPUT1 and item REPUT2 constrained equal	500.002	329	42.317	19	p<0.05	0.035	0.865	0.949
7. Model 2 with factor loadings of item REPUT3 constrained equal	511.259	329	53.574	18	ns	0.037	0.862	0.945
8. Model 2 with factor loadings of PRIVACY constrained equal	477.638	314	19.953	4	p<0.05	0.035	0.871	0.951
9. Model 2 with factor loadings of item PRIVACY 1 constrained equal	508.359	329	50.674	19	ns	0.038	0.859	0.942
10. Model 2 with factor loadings of item PRIVACY 1 and item PRIVACY 2 constrained equal	512.785	329	55.100	18	p<0.05	0.038	0.859	0.942
11. Model 2 with factor loadings of item PRIVACY 3 constrained equal	502.027	329	44.341	19	ns	0.036	0.862	0.946

Notes: 1. ΔX^2 = difference in chi-square values; Δdf = difference in degrees of freedom; ns = not significant
2. All models compared with Model 1.

Tableau 2. Les Statistiques de Qualité d'Ajustement pour le Test de l'Invariance du Modèle de la Mesure à travers la France et la Chine (suite)

Model Description	X^2	df	ΔX^2	Δdf	p-value	RMSEA	NFI	CFI
12. Model 2 with factor loadings of item PRIVACY 3 and item PRIVACY 4 constrained equal	509.636	329	51.951	18	p<0.05	0.037	0.860	0.943
13. Model 2 with factor loadings of SECURIT constrained equal	475.830	313	18.145	3	p<0.05	0.035	0.872	0.951
14. Model 2 with factor loadings of item SECURIT 1 constrained equal	520.345	329	62.659	19	p<0.05	0.037	0.860	0.942
15. Model 2 with factor loadings of item SECURIT 2 constrained equal	519.315	329	61.629	19	ns	0.037	0.860	0.943
16. Model 2 with factor loadings of item SECURIT 2 and item SECURIT 3 constrained equal	517.385	329	59.700	19	ns	0.037	0.860	0.943
17. Model 2 with factor loadings of PSLR constrained equal	457.739	312	9.353	2	ns	0.034	0.877	0.956
18. Model 2 with factor loadings of IOP constrained equal	462.238	313	4.553	3	ns	0.034	0.875	0.955

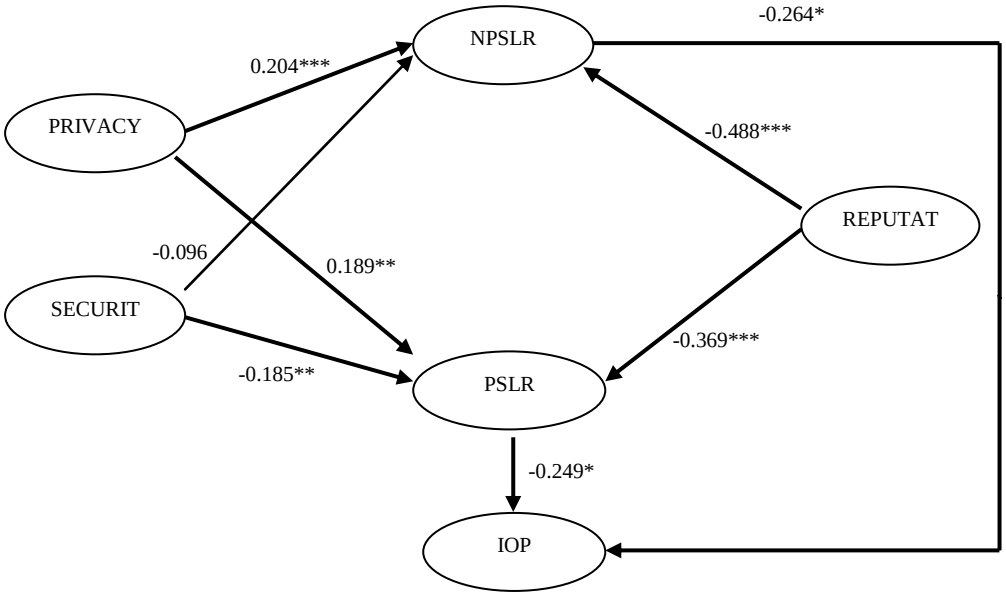
Notes: 1. ΔX^2 = difference in chi-square values; Δdf = difference in degrees of freedom; ns = not significant
2. All models compared with Model 1.

Tableau 3. Les Statistiques de Qualité d'Ajustement pour le Test de l'Invariance du Modèle Structurel à travers la France et la Chine

Model Description	X^2	df	ΔX^2	Δdf	p-value	RMSEA	NFI	CFI
1. Unconstrained model	628.692	324	-	-	-	0.048	0.835	0.911
2. Fully structural paths constrained equal	646.062	332	17.371	8	p<0.05	0.048	0.830	0.908
3. Model 2 with REPUT towards NPSLR structural path constrained equal	639.764	331	11.072	7	ns	0.047	0.832	0.910
4. Model 2 with REPUT towards NPSLR and REPUT towards PSLR structural path constrained equal	638.521	330	9.829	6	ns	0.048	0.832	0.910
5. Model 2 with NPSLR towards IOP structural path constrained equal	645.953	331	17.262	7	p<0.05	0.048	0.830	0.908
6. Model 2 with PSLR towards IOP structural path constrained equal	644.273	331	15.581	7	p<0.05	0.048	0.831	0.908
7. Model 2 with PRIVACY towards NPSLR structural path constrained equal	645.916	331	17.227	7	p<0.05	0.048	0.830	0.908
8. Model 2 with PRIVACY towards PSLR structural path constrained equal	644.324	331	15.633	7	p<0.05	0.048	0.831	0.908
9. Model 2 with SECURIT towards NPSLR structural path constrained equal	643.341	331	14.649	7	ns	0.048	0.831	0.909
10. Model 2 with SECURIT towards PSLR structural path constrained equal	644.867	331	16.176	7	p<0.05	0.048	0.830	0.908

Notes: 1. ΔX^2 = difference in chi-square values; Δdf = difference in degrees of freedom; ns = not significant
2. All models compared with Model 1.

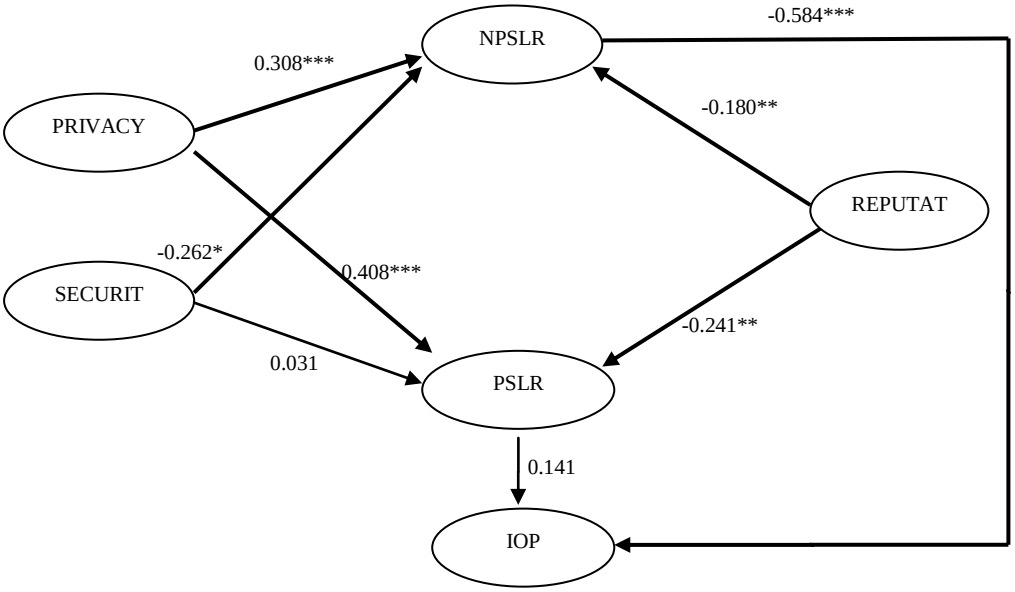
Figure 1. Estimations de Paramètre d'Equation Structurelle Standardisée pour l'Echantillon Chinois



Notes:

$\chi 2$ = 310.510, df = 162, p = 0.000, RMSEA = 0.069, GFI = 0.860, CFI = 0.910, NFI =0.831, AGFI = 0.819, IFI=0.912.
* p = 0.05, ** p = 0.01, *** p = 0.001;
Privacy concern=PRIVACY; Security protection=SECURIT; Reputation=REPUTAT; Perceived Non-Personal Risk=NPSLR; Perceived Personal Risk= PSLR; Intention to Repurchase=IOP

Figure 2. Estimations de Paramètre d'Equation Structurelle Standardisée pour l'Echantillon Français



Notes:

$\chi 2$ = 318.172, df = 162, p = 0.000, RMSEA = 0.066, GFI = 0.877, CFI = 0.912, NFI =0.838, AGFI = 0.840, IFI=0.913.
* p = 0.05, ** p = 0.01, *** p = 0.001.

Comparaison des Modèles Structurels

Nous employons le modèle d'équations structurelles avec la méthode du maximum de vraisemblance pour tester toutes les relations hypothétiques. Les figures 1 et 2 présentent les résultats des tests du modèle structurel. Le minimum a été atteint avec l'ajustement adéquat du modèle.

Comme le montre la figure 1, pour le modèle chinois, il a été constaté que la perception des préoccupations liées à la protection des informations personnelles « privacy concerns » a des effets positifs sur la perception du risque non-personnel et du risque personnel avec des coefficients de 0,204 (p <0,001) et 0,189 (p <0,01). Plus les acheteurs chinois en ligne perçoivent des problèmes de confidentialité sur le site Web commerçant, plus ils perçoivent le risque non-personnel et le risque personnel. Les hypothèses H1.1a et H1.1b sont donc confirmées (cf. Tableau 4).

La qualité de la protection des données confidentielles « security protection » sur le site Web commerçant a un effet positif sur la perception du risque personnel avec des coefficients de -0.185 (p <0,01). Plus les consommateurs chinois en ligne perçoivent une bonne qualité de la protection des données confidentielles « security protection », moins ils perçoivent des risques personnels, tels que le risque social et le risque psychologique. L'hypothèse H2.1b est donc confirmée.

Dans le modèle chinois, la réputation a un effet négatif significativement sur le risque non-personnel et le risque personnel, avec des coefficients de chemin de -0.488 (p <0,001) et -0.369 (p <0,001) respectivement. Plus les consommateurs chinois en ligne perçoivent qu'un site Web commerçant a une bonne réputation, moins ils perçoivent de risques. Les hypothèses H3.1a et H3.1b sont confirmées. Ce résultat confirme celui de Sweeney et al. (1999).

En outre, à la fois la perception du risque non-personnel (Beta = -0,264, p <0,05) et la perception du risque personnel (Bêta = -0,249, p <0,05) ont un impact négatif significatif sur l'intention de rachat. Plus les consommateurs chinois sur Internet perçoivent à la fois le risque non-personnel et le risque personnel, moins ils ont l'intention de racheter sur le site. Ainsi, nos données supportent les hypothèses H6.1a et H6.1b.

D'autre part, pour le modèle français, il a été constaté que les préoccupations liées à la protection des informations personnelles « privacy concerns » ont également des effets positifs sur la perception du risque non-personnel et du risque personnel des consommateurs Français avec des coefficients de chemin de -0.308 ($p < 0,001$) et -0,408 ($p < 0,01$) respectivement. Les acheteurs français en ligne perçoivent plus des problèmes de confidentialité concernant le site Web commerçant, plus ils perçoivent le risque non-personnel et le risque personnel. Ainsi, H1.2a et H1.2b sont confirmées.

En ce qui concerne la relation entre la qualité de la protection des données confidentielles « security protection » et la perception du risque, nous constatons que la perception de la bonne qualité de la protection des données confidentielles sur le site Web a des effets positifs sur la perception du risque non-personnel avec des coefficients de -0.262 ($p < 0,05$). Plus les acheteurs français en ligne perçoivent la bonne qualité de la protection des données confidentielles, moins ils perçoivent le risque non-personnel, tels que le risque physique, le risque financier, le risque de la source, le risque de la livraison et le risque du temps. L'hypothèse H2.2a est donc confirmée et l'hypothèse H2.2b n'est pas confirmée.

La réputation a aussi des effets négatifs sur la perception du risque non-personnel et du risque personnel avec des coefficients de chemin de -0.180 ($p < 0,001$) et -0,241 ($p < 0,01$) respectivement. Ainsi, les hypothèses H3.2a et H3.2b sont confirmées.

Il existe une relation négative entre le risque non-personnel et l'intention de racheter (Beta = -0.584, $p < 0,001$). Plus les acheteurs français perçoivent le risque non-personnel, moins ils ont l'intention de racheter sur le site. L'hypothèse H5.2a est confirmée et l'hypothèse H6.2b n'est pas confirmée.

Les résultats de l'analyse multi-groupe et la comparaison des modèles structurels confirment qu'il existe des différences dans l'effet de la perception des préoccupations liées à la protection des informations personnelles « privacy concerns », de la qualité de la protection des données confidentielles « security protection » et de la réputation des sites Web « website retailer's reputation » à la fois sur le risque non-personnel et la perception du risque personnel entre les consommateurs en ligne d'une culture collectiviste (Chine) et ceux d'une culture individualiste (France).

L'effet de la perception des préoccupations liées à la protection des informations personnelles « privacy concerns » est plus fort pour les consommateurs en France (Beta = -0.308, p <0,001) qu'en Chine (Beta = -0.204, p <0,001). Ainsi, l'hypothèse H5.1a est confirmée. De même, nous constatons qu'il y a un effet positif plus fort de la perception des préoccupations liées à la protection des informations personnelles « privacy concerns » est plus fort pour les consommateurs en France sur le risque personnel perçu par les consommateurs en France (Beta = -0,408, p <0,001) qu'en Chine (Beta = -0,189, p < 0,01). L'hypothèse H5.1b est donc confirmée.

En outre, il y a un effet positif plus fort de la perception de l'importance de la bonne qualité de la protection des données confidentielles « security protection » auprès d'un site Web commerçant sur le risque personnel perçu par les consommateurs en France (bêta = -0,262, p <0,05) qu'en Chine (non significatif). Ainsi, l'hypothèse H5.2a est confirmée et l'hypothèse H5.2b n'est pas confirmée.

Nous notons également, qu'en Chine il y a un effet négatif plus fort de la perception de l'importance de la réputation sur le risque perçu personnel par les consommateurs (Beta = -0.488, p <0,001) qu'en France (Beta = -0.180, p <0,01). Ainsi, l'hypothèse H5.3a est confirmée. De même, nous constatons aussi qu'il y a un effet positif plus fort sur la perception de l'importance des soucis des informations personnelles sur le risque perçu personnel par les consommateurs en Chine (Beta = -0.369, p <0,001) qu'en France (bêta = -0,241, p < 0,01). L'hypothèse H5.3b est donc confirmée.

La Discussion, les Implications, les Limites et les Futures Pistes de Recherche

La recherche a apporté quelques résultats. Tout d'abord, nous avons constaté que les répondants chinois et français perçoivent de faibles niveaux de risques non-personnels et personnels dans leurs achats de vêtements sur Internet, mais les répondants chinois perçoivent un niveau plus élevé de risques non-personnels et personnels que les français.

Tableau 4. Hypothèses et Résultats

Hypothèses	Résultats
La préoccuaption des informations personnelles et la perception du risque	
H1.1: La perception des préoccupations liées à la protection des informations personnelles « privacy concerns », liée au site Web commerçant aura un effet négatif sur la perception (a) du risque non-personnel, (b) du risque personnel du consommateur chinois.	H1.1a est confirmée H1.1b est confirmée
H1.2: La perception des préoccupations liées à la protection des informations personnelles « privacy concerns liée au site Web commerçant aura un effet négatif sur la perception (a) du risque non-personnel, (b) du risque personnel du consommateur français.	H1.2a est confirmée H1.2b est confirmée
La qualité de la protection des données confidentielles « security protection » et la perception du risque	
H2.1: La bonne qualité de la protection des données confidentielles « security protection » sur le site Web commerçant aura un effet négatif sur la perception (a) du risque de non-personnel, (b) du risque personnel du consommateur chinois.	H2.1a est jetée H2.1b est confirmée
H2.2: La bonne qualité de la protection des données confidentielles « security protection » sur le site Web commerçant aura un effet négatif sur la perception (a) du risque de non-personnel, (b) du risque personnel du consommateur français.	H2.2a est confirmée H2.2b est jetée
La réputation du site Web commerçant et la perception du risque	
H3.1: La bonne réputation du site Web commerçant aura un effet négatif sur la perception (a) du risque non-personnel, (b) du risque personnel du consommateur chinois.	H3.1a est confirmée H3.1b est confirmée
H3.2: La bonne réputation du site Web commerçant aura un effet négatif sur la perception (a) du risque non-personnel, (b) du risque personnel du consommateur chinois.	H3.2a est confirmée H3.2b est confirmée
L'influence culturelle- Le niveau de la perception du risque des consommateurs chinois et français	
H4.1: Les consommateurs chinois en ligne perçoivent un niveau plus élevé du risque non-personnel que les consommateurs français.	H4.1 est jetée
H4.2: Les consommateurs chinois en ligne perçoivent un niveau plus élevé du risque personnel que les consommateurs français.	H4.2 est jetée

Tableau 4. Hypothèses et Résultats (suite)

Hypothèses	Résultats
L'influence culturelle- L'effet de la culture sur la perception de l'importance des déterminants de la perception du risque	
H5.1: Les préoccupations liées à la protection des informations personnelles sur la perception (a) du risque non-personnel et (b) du risque personnel ont un effet plus fort dans une culture individualiste (France) que dans une culture collectiviste (Chine).	H5.1a est confirmée H5.1b est confirmée
H5.2: La qualité de la protection des données confidentielles sur la perception (a) du risque non-personnel et (b) du risque personnel a un effet plus fort dans une culture individualiste (France) que dans une culture collectiviste (Chine).	H5.2a est confirmée H5.2b est jetée
H5.3: La réputation du site Web commerçant sur la perception (a) du risque non-personnel et (b) du risque personnel a un effet plus fort dans une culture collectiviste (Chine) que dans une culture individualiste (France).	H5.3a est confirmée H5.3b est confirmée
La perception du risque et l'intention à récheter	
H6.1: La perception (a) du risque non-personnel, (b) du risque personnel aura un effet négatif sur l'intention de rachat du consommateur chinois sur un site Web commerçant.	H6.1a est confirmée H6.1b est confirmée
H6.2: La perception (a) du risque non-personnel, (b) du risque personnel aura des effets négatifs sur l'intention de rachat du consommateur français sur un site Web commerçant.	H6.2a est confirmée H6.2b est jetée

Le phénomène que les participants des deux pays ont un niveau de risque faible peut s'expliquer par le développement du e-commerce dans les deux pays et que tous les participants ont un niveau relativement élevé des expériences d'achats de vêtements en ligne. Selon Pavlou et Gefen (2005), les expériences d'achats influencent positivement sur les intentions d'achats futures (Ganesan, 1994), réduisent des risques perçus, et renforcent la confiance (Blau, 1964; Gefen, 2000; Luhmann, 1979).

Pour les différents scores de risque perçu entre les deux échantillons, nous constatons que les consommateurs chinois qui font d'achats en ligne perçoivent un risque non-personnel et un risque personnel plus élevés que les consommateurs français. Cette différence peut s'expliquer par les différences culturelles entre la Chine et la France. L'évitement de l'incertitude est considérée comme perspective interculturelle de risque perçu la plus importante parce que cette dimension reflète la tolérance ou l'intolérance d'une culture de l'incertitude. Dans un pays à faible évitement de l'incertitude, « des risques inconnus sont acceptées, telles que le changement d'emploi et le départ des activités pour lesquelles il n'existe pas de règles» (Hofstede, 2001, p. 148).

L'étude de Hofstede (1984) démontre que la Chine est une culture faible concernant l'évitement de l'incertitude, alors que la France était une culture élevée concernant l'évitement de l'incertitude. En conséquence, la France se caractérise par une prise de risques plus importante (Hofstede, 2001), tandis que la Chine a tendance à prendre moins de risques.

Pourtant, dans notre reteste des résultats de Hofstede nous avons constaté que la Chine (M =5.8755 et la France (M = 5.2756) ont des scores élevés sur l'évietement de l'incertitude. La Chine a en fait scores encore plus élevés que la France. Wu (2006) a également constaté que les participants taiwanais (M = 5,47) et les participants américains (M = 5,57) ont des scores élevés sur l'évitement de l'incertitude.

Ce changement culturel peut être expliqué par les changements sociétaux, économiques, et dramatiques dans les deux dernières décennies en Chine. Lorsque l'environnement politique, social et économique change, les valeurs culturelles changent également. Par exemple, depuis la décision de la Chine en 1978 de commencer ses réformes économiques et son ouverture, la Chine a connu un changement institutionnel et économique extraordinaire (Tisdell, 2009).

Certains changements ont eu lieu en Chine, car elle ne peut pas éviter l'influence de la mondialisation. Cela a modifié son système de culture de façon substantielle. Les Chinois, en particulier les jeunes, sont influencés par la culture occidentale. En outre, avec l'émergence de l'opportunisme, les préoccupations des chinois sont davantage portées sur les risques. Cela renforce leur tendance à l'évitement de l'incertitude. Ainsi, la Chine prend moins de risques que la France, puisque sa culture est caractérisée par un fort évitement à l'incertitude.

Le deuxième résultat principal est que le rôle des déterminants des risques perçus (les préoccupations liées à la protection des informations personnelles « privacy concerns », la qualité de la protection des données confidentielles « security protection » et la réputation des sites Web « website retailer's reputation ») sur les risques perçus dans les achats en ligne varient selon les cultures. La réputation du site Web commerçant est plus valorisée dans les cultures collectivistes (Chine), tandis que les préoccupations liées à la protection des informations personnelles « privacy concerns » et la qualité de la protection des données confidentielles « security protection » sont plus valorisées dans les cultures individualistes (France).

Enfin, nous avons constaté que le risque perçu non-personnel a un effet négatif significatif sur l'intention de rachat des consommateurs chinois et français, tandis que le risque personnel perçu n'influence que l'intention de rachat des consommateurs chinois de manière négative et significative.

Les Implications Théoriques et Managériales

Du point de vue théorique, notre recherche a donné un aperçu des changements de la perception du risque. Nous avons constaté que les répondants chinois et français perçoivent de faibles niveaux de risques non-personnels et personnels dans leurs achats de vêtements sur Internet, mais les répondants chinois perçoivent un niveau plus élevé de risques non-personnels et personnels que les français. Ces résultats sont contraires à ceux des études précédentes. Nous expliquons cette différence du point de vue de différences culturelles entre la Chine et la France. L'étude de Hofstede (1984) démontre que la Chine est une culture faible concernant l'évitement de l'incertitude, alors que la France était une culture élevée concernant l'évitement de l'incertitude. En conséquence, la France se caractérise par une prise

de risques plus importante (Hofstede, 2001), tandis que la Chine a tendance à prendre moins de risques.

Pourtant, dans notre reteste des résultats de Hofstede nous avons constaté que la Chine et la Franceont des scores élevés sur l'évietement de l'incertitude. La Chine a en fait scores encore plus élevés que la France. Ce changement culturel peut être expliqué par les changements sociétaux, économiques, et dramatiques dans les deux dernières décennies en Chine. Avec l'émergence de l'opportunisme, les préoccupations des chinois sont davantage portées sur les risques. Cela renforce leur tendance à l'évitement de l'incertitude. Ainsi, la Chine prend moins de risques que la France, puisque sa culture est caractérisée par un fort évitement à l'incertitude.

D'ailleurs, notre étude fournit un modèle de groupe multiple qui explique les principaux processus psychologiques résultant de l'influence de la perception des préoccupations liées à la protection des informations personnelles « privacy concerns », de la qualité de la protection des données confidentielles « security protection » et de la réputation des sites Web « website retailer's reputation » sur l'intention de rachat via les risques perçus. En outre, notre étude a également testé empiriquement le modèle en utilisant les données interculturelles recueillies à partir de la Chine et de la France deux pays qui représentent respectivement les cultures collectivistes et individualistes.

Nous avons utilisé le modèle de Hofstede (1998, 2001) comme point de départ, malgré le fait que ce travail a été critiquée comme étant dépassé, car les études empiriques ont eu lieu en 1967-1973 (Soares, 2004), en particulier avec l'évolution rapide des environnements globaux, la mondialisation et la convergence (Jones et Alony, 2007).

Nous avons retesté (1984; 2001) des études de Hofstede en Chine et en France. La dimension culturel individualisme / collectivisme de la Chine et de la France est cohérente avec celle de Hofstede (1984; 2001), bien qu'il existe quelques légères différences. Dans notre étude, les chinois ont une valeur de collectivisme moyenne plutôt que forte, tandis que les français semblent être plus collectivistes que ceux étudiés par Hofstede (1984, 2001). Ce nouveau test a donné un aperçu des changements de valeurs culturelles depuis que Hofstede a mené son étude originale. Par conséquent, nous suggérons que les chercheurs interculturels devraient

utiliser les cinq dimensions culturelles de Hofstede avec prudence. D'un point de vue managérial, nous recommandons aux personnes qui travaillent dans l'environnement international de tenir compte des différences culturelles lorsqu'ils prennent des décisions ou développent des stratégies liées à leurs marchés internationaux.

Du point de vue méthodologique, cette étude a employé une analyse de SEM de multi-groupes pour tester l'équivalence de mesure et analyser des données utilisant le logiciel AMOS. À notre connaissance, dans les revues des Systèmes d'Information, un seul article publié utilise l'analyse de SEM de multi-groupes pour confirmer que les instruments de mesure sont équivalents entre les groupes, Kim, D. J. (2008), "Self-Perception-Based Versus Transference-Based Trust Determinants in Computer-Mediated Transactions: A Cross-Cultural Comparison Study", *Journal of Management Information Systems*, Vol. 24, n° 4, pp. 13-45.

En plus des implications théoriques et méthodologiques, notre étude contribue à l'évolution managériale en fournissant les managers des entreprises multinationales en ligne les informations importantes.

Tout d'abord, nous avons constaté que les répondants chinois perçoivent un niveau plus élevé de risques non-personnels et personnels que les français et que la perception du risque, surtout la percption du risque non-personnel, a un effect sur l'intention de racheter. Les e-commerçants devraient réduire au minimum les risques non personnels perçus par les consommateurs, surtout les consommateurs chinois, en particulier dans leurs efforts pour proposer plus d'informations sur les produits d'habillement. Les consommateurs ont besoin de certains types d'informations à réduire l'incertitude potentiel / risque (Weinberg, 2001). Par exemple, les images 3D, les détails concernant la taille des vêtements, des composants matériels et la comparaison des produits. Cette information permet aux acheteurs de développer une idée plus complète de l'aspect qualité et à l'extérieur du produit. En outre, les sites commerciaux doivent garantir le remboursement et offrir un bon service aux consommateurs pour améliorer et soutenir des expériences d'achats positifs sur Internet. Sécurité des paiements devrait également être accordée à l'attention par les sites Web commerçants. Cette dimension du risque est généralement considérée comme l'une des principales préoccupations des acheteurs en ligne, même si les systèmes de paiement ont été

élaborés et largement acceptés par e-acheteurs dans les marchés en ligne. Enfin, les e-commerçants doivent également fournir des stratégies spécifiques concernant la perception du risque personnel dans le marché chinois, car la perception du risque personnel semble important pour les consommateurs chinois par apport aux consommateurs français.

Deuxièmement, notre recherche, menée en Chine et en France, montre l'influence de la perception des préoccupations liées à la protection des informations personnelles « privacy concerns », de la qualité de la protection des données confidentielles « security protection » et de la réputation des sites Web « website retailer's reputation », en prenant en considération le risque perçu. À la lumière de nos constatations, les e-commerçants sont invités à répondre à ces trois questions et à minimiser les risques.

Troisièment, la croissance de la technologie de l'information, la mondialisation rapide, et la libéralisation du commerce électronique ont intensifié la concurrence entre les e-commerçants. De plus en plus, les entreprises étendent leurs activités commerciales au-delà de leurs marchés intérieurs. Par conséquent, il est impératif que les entreprises à comprendre et à faire face aux différences culturelles (Keh et Sun, 2008). Les dirigeants d'entreprises multinationales de l'Internet devraient mettre un accent particulier sur les questions de la perception des préoccupations liées à la protection des informations personnelles « privacy concerns », de la qualité de la protection des données confidentielles « security protection » et de la réputation des sites Web « website retailer's reputation », vu de la perspective du contexte culturel de leurs consommateurs cibles.

Finalement, la comparaison entre la Chine et la France mérite une attention particulière pour prendre en compte l'augmentation de la coopération commerciale entre la Chine et la France. La majorité des récentes études interculturelles sur le risque perçu ont été réalisées sur la Chine et les Etats-Unis, les deux acteurs majeurs de l'économie mondiale, aujourd'hui (Hsee et Weber, 1997; 1999; Yates et al, 1996; Yates et al., 1997; Weber et Hsee, 1998; Weber et al, 1998; Yates et al, 1998). L'Union européenne est aussi un acteur mondial majeur et doit recevoir une attention égale.

La Chine et la France ont été choisies parce que les recherches interculturelle précédente a rapporté que les deux nations représentent des valeurs opposées en termes de diversités des

dimensions culturelles (Hall, 1976; Hofstede, 2001). Plus précisément, une échelle (individualisme / collectivisme) de Hofstede montre clairement des différences significatives entre les deux pays. En outre, la Chine a été considérée comme l'un des pays qui a adopté le plus rapidement les technologies au niveau international, parallèlement la France représente une grande part du marché de détail en ligne sur le marché domestique européen. Les résultats de cette étude comparative entre la Chine et la France révèlent de nouveaux points de vue pour compléter les résultats d'études antérieures sur les facteurs culturels. Nous pensons qu'une réplication des travaux antérieurs permettrait de généraliser l'application de ces résultats à des populations différentes, en particulier sur les quelques pays déjà étudiés.

Les résultats de la présente étude peuvent être utilisés par les entreprises françaises, en particulier celles qui veulent mieux comprendre la perception du risque par les consommateurs chinois en ligne, sur la base des perspectives culturelles, pour accroître l'efficacité du marketing, pour réduire la perception du risque et conserver la fidélité des consommateurs. Nos résultats ont également des implications importantes pour les praticiens du marketing travaillant en Chine, en particulier pour les salariés des entreprises multinationales qui arrivent en Chine et qui ne sont pas encore familiarisés avec l'environnement chinois.

Les Limites et les Orientations Futures de la Recherche

Cette recherche comporte certaines limites liées à la généralisation de ces conclusions.

- Un échantillonnage aléatoire n'a pas été employé régulièrement dans la recherche. Cette étude a utilisé une technique d'échantillonnage non probabiliste. L'étude a utilisé les réponses des étudiants âgés de 20 à 35 ans. L'échantillon est représentatif de la population cible, cependant la généralisation des résultats doit être traitée avec précaution hors de cet échantillon. Des travaux empiriques futurs sont nécessaires pour démontrer que ces résultats ne sont pas limités à cet échantillon particulier.

- Deuxièmement, notre recherche se limite à l'aide d'une seule catégorie de produits: les vêtements. Une autre étude est nécessaire de recueillir des données provenant d'autres catégories de produits pour reproduire les résultats.

- Troisièmement, cette étude ne comprend pas toutes les variables potentiellement liées aux risques perçus sur Internet. Dans notre étude, nous avons simplement abordé la perception du risque, basée sur les préoccupations liées à la protection des informations personnelles « privacy concerns », la qualité de la protection des données confidentielles « security protection », la réputation des sites Web « website retailer's reputation », et les dimensions culturelles. Cependant, d'autres variables existent et devront être testées dans les études futures.

- Quatrièmement, cette étude considère seulement deux pays, la Chine et la France, qui ont des cultures nationales distinctes, que nous considérons comme deux types culturels. Parce qu'il y a près de 200 pays dans le monde, une étude ultérieure est nécessaire pour recueillir des données provenant d'autres pays ayant des types de culture similaires pour généraliser les résultats.

Enfin, étant donné que le principal instrument utilisé pour mesurer les constructions dans cette recherche est autodéclaré, les réponses des répondants concernant leurs attitudes peuvent être biaisées par les limites de leur mémoire. Les recherches futures pourraient élaborer des mesures plus objectives, par exemple une analyse des pratiques d'achat de consommateurs réels sur un véritable site e-commerce.

RÉSUMÉ

Les risques perçus associés aux achats en ligne ont un effet critique sur la prise de décision du consommateur. En outre, étant donnée la mondialisation rapide des achats en ligne, une compréhension des raisons pour lesquelles les risques perçus varient en fonction de différentes cultures dans les achats en ligne est pertinente.
La question de recherche qui motive cette étude est la suivante: « *Quelles sont les différences significatives dans les effets de plusieurs déterminants des risques perçus dans les achats de vêtements en ligne en fonction des différences culturelles entre la Chine et la France ? »*
Un modèle d'équations structurelles est développé sur les relations hypothétiques entre les construits de l'étude. La recherche a apporté quelques résultats. Tout d'abord, nous avons constaté que les répondants chinois et français perçoivent de faibles niveaux de risques non-personnels et personnels dans leurs achats de vêtements sur Internet, mais les répondants chinois perçoivent un niveau plus élevé de risques non-personnels et personnels que les français. Le deuxième résultat principal est que le rôle des déterminants des risques perçus (la préoccupation des informations personnelles, la protection de la sécurité et la réputation des vendeurs en ligne) sur les risques perçus dans les achats en ligne varient selon les cultures. La réputation du site Web est plus valorisée dans les cultures collectivistes (Chine), tandis que la préoccupation des informations personnelles et la protection de la sécurité sont plus valorisées dans les cultures individualistes (France). Enfin, à la fois pour l'échantillon chinois et français, les risques perçus non-personnels ont un effet significatif sur l'intention à racheter. D'autre part, en ce qui concerne l'effet des risques perçus personnels, nous avons constaté qu'il y avait un effet négatif des risques perçus personnels sur les consommateurs chinois.

Mots clés: Perception du risque non-persnonnel, Perception du risque personnel, Achat en ligne, Individualism/Collectivism, Préocupation des informations personnelles, Protection de la sécurité, Réputation des vendeurs en ligne

ABSTRACT

The perceived risks associated with online shopping have a critical effect on consumer decision making. In addition, cultural values provide a good theoretical basis for understanding perceived risk. Given the rapid globalization of online shopping, an understanding of the reasons why perceived risk vary in different cultures regarding online shopping should be crucial.
The research question furnishing the main impetus for this study is: *What are the significant differences in the effect of several determinants of perceived risk of online clothing shopping depending on cultural differences between China and France?*
Structural equation models with the maximum likelihood estimation method are employed to test all the hypothesized relationships. The research puts forth some findings. First, it is interesting to note that both the Chinese and French respondents perceive low levels of non-personal and personal risk regarding their online clothing purchases, but the Chinese respondents perceive higher non-personal risk than the French respondents and higher personal risk than the French respondents. The second key finding is that privacy concerns, security protection, and reputation have different effects on both consumer perception of non-personal risk and personal risk depending on cultural differences. Reputation is more valued in collectivist cultures (China), while privacy concerns and security protection are more valued in individualist cultures (France). Additionally, for both the Chinese and French samples, non-personal perceived risk significantly effects intention to repurchase. We found personal perceived risk has a significant effect only on Chinese consumer intention to repurchase.

Key words: Non-personal risk, personal risk, online shopping, Individualism/Collectivism, privacy concern, security protection, website retailer reputation